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ABSTRACT

This report contains forty papers presented at the tenth international conference of the International Council on Correspondence Education. The conference theme is described as one analyzing educational and administrative sub-systems and components, with reference to their purposes, significance, characteristics, interrelationship, and cost effectiveness. Also addressed are the implications of these functions for the evaluation of distance education programs with respect to information counseling, student activities, and two-way communication and, on the other hand, marketing and management. Papers in the first of four sections explore the system of distance education. For example, Renee S. Erdos describes "The System of Distance Education in Terms of Sub-Systems and Characteristic Functions." Section 2 focuses on the modes of teaching in distance education. A sample offering from this section is John Cain's "Mass Media--Educational Television and Radio." Section 3 reviews distance education and the open learning trend; for example, one selection by Paul Chang Min Phang deals with "Planning and Administering a University Off-Campus Academic Programme in a Plural Society." In the final section student service, student activity, and two-way communication are examined. For instance, in this section David M. Young discusses the "Characteristics of Informative Publicity Material and the Pre-Enrolment Correspondence." (CSS)

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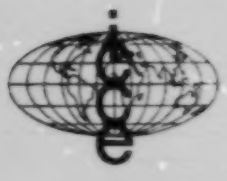

international council
on correspondence education

Edited by Erling Ljosså

The System of Distance Education

PAPERS TO THE 10TH ICCE INTERNATIONAL CONFERENCE
BRIGHTON, GREAT BRITAIN 12-16 MAY 1975

CE 020 733

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The ICCE President's Preface

The System of Distance Education is indeed a subject worthy of study. All ICCE members and participants in the 10th ICCE Conference in Brighton in May 1975 are greatly indebted to the programme committee chaired by Mr. Gunnar Granholm for having planned a conference where this theme is to be discussed. While planning the conference it soon became evident that a comprehensive pre-conference dokumentation would be necessary. Thanks to Mr. Granholm, Mr. Erling Ljoså the editor, and those who contribute papers to the conference we are in a position to offer this book not only as pre-conference reading but also as a representative survey of today's views of the System of Distance Education.

The background for the study of the papers in this book is provided by Gunnar Granholm and Erling Ljoså in the Introduction. Discussions between ICCE members since 1972 and an exchange of opinions with representatives of Unesco have paved the way for the approach chosen. A presentation of the conference theme (The System of Distance Education – Some Thoughts on the Theme of the 10th ICCE World Conference) written by Mr. Ripley Sims and Mr. Granholm – distributed in 1974 long before the preliminary conference programme – bears witness to the considerations which led us to decide on the subject that we call the system of distance education.

The papers in this book make it perfectly clear that a great need of distance education methods is felt in the various societies of today. They provide a good picture of the great many approaches to distance education that are to be found in the world and of the differences in requirements, possibilities, methods, media and frame factors that exist. It is true that we have some kind of core that is common to the various concepts of distance education and that several applications and practises are looked upon in more or less the same way in many parts of the world, but nevertheless distance education is clearly a pluralistic method. This is one impression the reading of the papers has made on me.

Another impression is that we have, indeed, much to learn from these contributions, and a third is that although we like to regard ourselves as spokesmen of unconventional methods and flexible approaches many of us have developed conventions in our work, the necessity or value of which can with good reasons be questioned.

Is there, for instance, always a good reason why correspondence courses should be limited to certain periods of study, why registration of students should be limited to a numerus clausus, why students should not be encouraged to select the courses or parts of courses they would like to study, why residential study or any other part of a programme should be compulsory, why course material should be sent at fixed intervals instead of at the wish of students or on the basis of their progress, all of which are principles accepted by many schools and universities? Why fixed programmes, fixed number of study months, weeks or hours? Why not encourage and train the students to be really autonomous? These questions are touched on in several papers (see particularly that by R.M. Delling) and was made the subject of a paper by Michael Moore at the 1972 ICCE Conference in Warrenton.

The explanation of a number of practises which to some of us seem unnecessary and for no good reason based on the traditions of oral instruction is no doubt to be found in the fact that distance education is a sub-system of education as a whole in the various cultures of the world (cf. the Introduction). The judgment of working methods must be related to the requirements and aims of the students and the societies in which they live. The papers in this book elucidate the plurality also in this respect.

The lesson is obvious:
We can and had better learn from one another.

INTRODUCTION

What is it in distance education/correspondence education/home study that makes it worth while coming together exchanging information and experience and trying to develop our particular mode of teaching throughout the world? Indeed, why have we chosen distance education for the work we want to do? And what is it that makes this learning method efficient and makes it worth developing in years to come?

It is evident to anyone reading the Proceedings of earlier ICCE conferences and the comments made by the participants of the 9th Conference that our colleagues approach the problems of distance education in very different ways. The differences come out as nationally varying emphases on for example expectations concerning student work, comprehensiveness of course material, student follow-up, examinations and subject areas. However, they are also shown in the various outlooks on international co-operation and on the future development of distance education. All this is just natural. We work against different backgrounds, striving to meet different needs and to fulfil different objectives. Such differences are found even to some extent between various colleges and institutions within the same cultural area or country.

The theme and the purposes of the conference

There is definitely a great need for specific definition of these characteristics before development and, perhaps we could also say, research can go further into such problems as evaluating courses and student achievement, questions connected with effective development measures and so on. Not only is it essential to identify the various advantages within distance education, but we also have to try to isolate the various components of the man-materials system with which we are working in order to be able to develop new courses as effeciently as possible and to be able to evaluate existing courses as objectively as possible. On the basis of such an analysis we should also be able to communicate more easily between institutes in various parts of the world, to compare experiences, to compare course programmes to suit the needs of many more people than we should otherwise be able to do. We should be able to develop a terminology, which could serve to describe the educational as well as the administrative aspects of any particular distance education course or programme.

On the basis of considerations like these, the theme of the 10th ICCE World Conference has been worded in the following way:

> **The System of Distance Education**
>
> an analysis of educational and administrative sub-systems and components, with reference to their
>
> - purposes
> - significance
> - characteristics
> - interrelationship
> - cost effectiveness
>
> and the implications of these functions for the evaluation of distance education programmes with respect to
>
> - information
> - counselling
> - student activities
> - two-way communication
>
> and, on the other hand,
>
> - marketing
> - management

Distance education is one aspect of an integrated variety of methods whereby human beings strive to learn. Further, the conference theme denotes in the broadest sense a sub-system of the total educational system of society. Taken one step further still, the total educational system itself is in reality a sub-system of society as a whole. Thus, with the integrative and sub-systematic aspects of our conference theme clearly in focus, we can better concentrate our efforts and competencies on the concerns and problems of distance education with the perspective previously described.

The time seems to be passing rapidly when one method of education can function alone to the exclusion of all others, if indeed this was ever the case. Today's complex societies demand inputs from a variety of educational methods, and traditional as well as non-traditional methods are required increasingly to meet the unique needs of the learner in a way or in ways convenient for the learner.

What distinguishes one educational method from another is, of course, its unique characteristics. Certain characteristics of distance education are well-known through repeated recital: the heavy dependence on the written word, the absence of exchange of ideas and interplay of minds present in the class-room, the absence of direct appeal of the personality of the teacher, the absence of active and open competition with classmates, the frequent absence of laboratories, museums, libraries and other aids normally available on the campus, and the like.

Not so well-known are the varieties of patterns and approaches which may be employed to enhance, enrich and enliven the distance education process for the learner. Some of the well-known limitations of distance education may be compensated for by the unique patterns of arrangement, organization and presentation of the subject matter at hand.

It is one of the purposes of the 10th ICCE Conference to explore and explicate some of the less often recited characteristic perimetres of distance education, and to elucidate the complementary and supplementary roles of various educational methodologies in today's complex educational systems.

The pre-conference book

In this pre-conference book we have made efforts to present as many as possible of the papers to the conference, in order to give delegates the opportunity of studying relevant papers before going to the conference. Thus, the presentation of papers during the conference sessions may concentrate on summaries, further comments, and discussion.

We do not ask the delegates to read every paper in this book. At the conference you will have to choose between topics, and we propose that you begin the selection (and preparation) with this book.

The papers have been grouped under four main headings according to content, and with a sidelong glance to the preliminary outline of the conference programme. In this way the four "parts" of the book emerged:

1. The System of Distance Education
2. Modes of Teaching in Distance Education
3. Distance Education and the Open Learning Trend
4. Student Service, Student Activity and Two-way Communication

In order to make the selection of papers of special interest still easier for the reader, each paper has been supplied with an abstract, placed just beneath the heading.

Finally, we wish to express our gratitude to the authors and their institutes for their willingness to contribute to the 10th ICCE International Conference, generously allowing us to print these papers in the pre-conference book.

Gunnar W. Granholm
(Chairman of Programme Committee)

Erling Ljosá
(Editor)

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Part 1

The System of Distance Education

The System of Distance Education in Terms of Sub-Systems and Characteristic Functions

A Presentation of Analytical Methodology

Miss Renée F. Erdos

Presently, on behalf of SIDA, at the Institute of Adult Education, University of Dar es Salaam, Tanzania

The increasing demand for and the changing attitude to distance education call for any analytical study of its methodology. This is the starting point of Miss Erdos' key-note address.

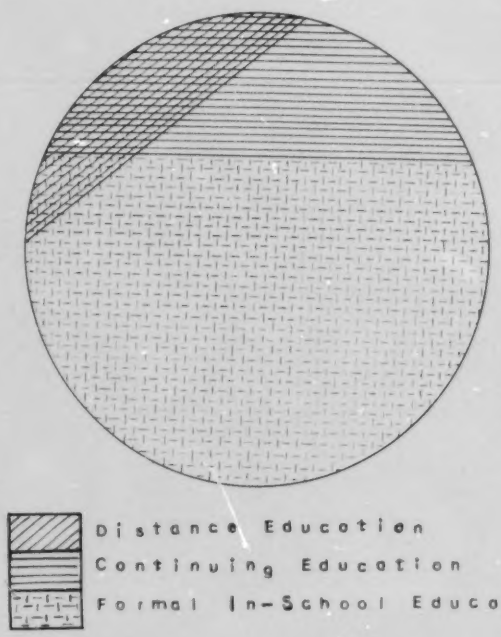
Experience has shown that there is a recognizable system of distance education with an infra-structure of interacting sub-systems. This system provides material for research, and time is opportune to carry out value analyses aimed at improving the techniques and therefore the effectiveness of distance education. The International Council on Correspondence Education might initiate a long term programme of planned and co-ordinated research studies.

Value analyses of components would contribute to a synthesis of greater knowledge and better understanding of the methodology of distance education and how the sub-systems function and interact within the system.

Three basic questions are also examined because of their importance to planners of new distance education institutions or services, and to established institutions which may need reorganization. The questions are where institutions of distance education should be located, how distance education should be integrated with other educational services in the nation's total system of education, and if there is an optimum size for an effective distance education institution.

Distance education requires educators to teach their students despite separation by space. This separation must be overcome by writing or by one or more of the various channels of communication which technology has made possible — radio, television, tape recordings, telephone. Any general discussion of the methodology of the system and sub-systems of distance education must therefore relate to the use of any medium or combination of media which can be used to span the distance between educators and learners.

TOTAL SYSTEM OF EDUCATION



THE FUTURE ROLE OF DISTANCE EDUCATION

In the perspective of the total system of education distance education appears to play its major role in continuing out-of-school education; it is becoming increasingly important as the demands for continuing education and for facilities for independent learning grow. In the past distance education played a small role only in the education of children and adolescents, and then usually as a substitute when regular in-school education was not available. And with closer settlement, road building, more and quicker transport, and the availability of more in-school institutions the use of distance education at this level tended to decrease. However, now there are indications of a change in attitude towards distance education, not only by the in-

creasing demand for out-of-school continuing education for adults, but formal in-school institutions demand it as well. No longer is distance education regarded merely as a substitute, but rather as a supplement which, integrated into the in-school education, gives it greater flexibility, wider extension, reinforcement for slow learners, and additional programmes of study both in depth and breadth for the quick learners.

Can it be that in this change of attitude, and in the growing demand for distance education, we are beginning to experience a coming change in the total educational system which Alvin Toffler forecasts in his thought provoking book Future Shock? Toffler predicts that

> "In the technological systems of to-morrow – fast, fluid and self-regulating-machines will deal with the flow of information and insight. Machines will increasingly perform the routine tasks; men the intellectual and creative tasks. Machines and men both, instead of being concentrated in gigantic factories and factory cities, will be scattered across the globe, linked together by amazingly sensitive, near – instantaneous communications. Human work will move out of the factory and mass office into the community and home."[1]

With this movement Toffler thinks "we may witness . . . a limited dialectical swing back towards education in the home."[2] Today's schools he describes as the "factory-model schools of Industrial Man . . . machine – tooled . . . to occupy a comparatively permanent slot in the social and economic order".[3] But he predicts that in the constantly accelerating changes in the social and economic systems of the super-industrial era "education must prepare people to funktion in temporary organizations."[4] He believes that

> "schools of the future, if they wish to facilitate adaptation later in life, will have to experiment with far more varied arrangements. Classes with several teachers and a single student; classes with several teachers and a group of students; students organized into temporary task forces and project teams; students shifting from group work to individual or independent work and back again – all these and their permutations will need to be employed to give the student some advance taste of the experience he will face later on when he begins to move through the impermanent organizational geography of super-industrialism."[5]

Toffler says that the following "organizational goals . . ." become clear if we are to prepare for the change in the total system of education which the coming "super-industrial society" will require:

> "dispersal, decentralization, interpenetration with the community, ad-hocratic administration, a break-up of the rigid system of scheduling and grouping."[6]

As we stand today the developing countries may be in a more fortunate position of being able to make full use of distance education, because of their endeavour to raise the general knowledge of the adult population, to impart particular vocational knowledge, and to introduce a change of attitude to learning. They are faced with severe shortages of teaching staff, they have poor facilities for arranging face-to-face instruction, and they are to an embarrassing degree short of finance. To these societies a well-organized system of distance education might be the right answer to urgent questions of immediate education needs, and might at the same time allow them to jump one cumbersome step in the development of an integrated continuous education system. While it is the developed countries who must prepare for a "break-up of the rigid system of scheduling and grouping" in the education system, and adjust to far more diversified, functionalized, individualized learning and teaching approaches, the developing countries can from this very point embark on a strategy of basically independent instruction by correspondence, radio, and other available media.

If, indeed, we are on the threshold of such radical change in the total system of education, it is timely that, at this Tenth International Conference of the International Council on Correspondence Education, we should initiate a programme to make an analytical study of the methodology of distance education, because the future is likely to make ever greater demands on it to provide those modules of independent study for individual work which the coming total system of life-long learning will require. And what is our springboard for this analytical study?

Early experience in developing distance education was largely empirical. Many of today's long established distance education agencies began in single experiments out of which grew complex organizations. Truly, the pioneers of distance education "learned by doing", and shaped development directed by experience. As appreciation of the usefulness of distance education grew, and those involved in it came to inform each other about their organizations and how they operated, it became apparent that, despite variations in cultural background and national philosophy and planning, there are certain common components fundamental to agencies of distance education, and that these common components constitute a recognizable system. Cumulative experience has now brought us to a point at which we can analyse the total system of distance education – look at it as a whole, and see the functions within it of an infra-structure of interacting sub-systems or component parts.

THE SYSTEM AND SUB-SYSTEMS OF DISTANCE EDUCATION

A diagram of the system of distance education shows within the total system six interdependent sub-systems. To fulfil the aim and objectives of the planned educational programme teaching material must be prepared for one or more media of communication – either printed matter, radio, television, tape recorder, or a combination of two or more media. The prepared teaching material must be distributed to those who want it and their reaction channelled back to educators. Only by the reaction of students can the instruction be as-

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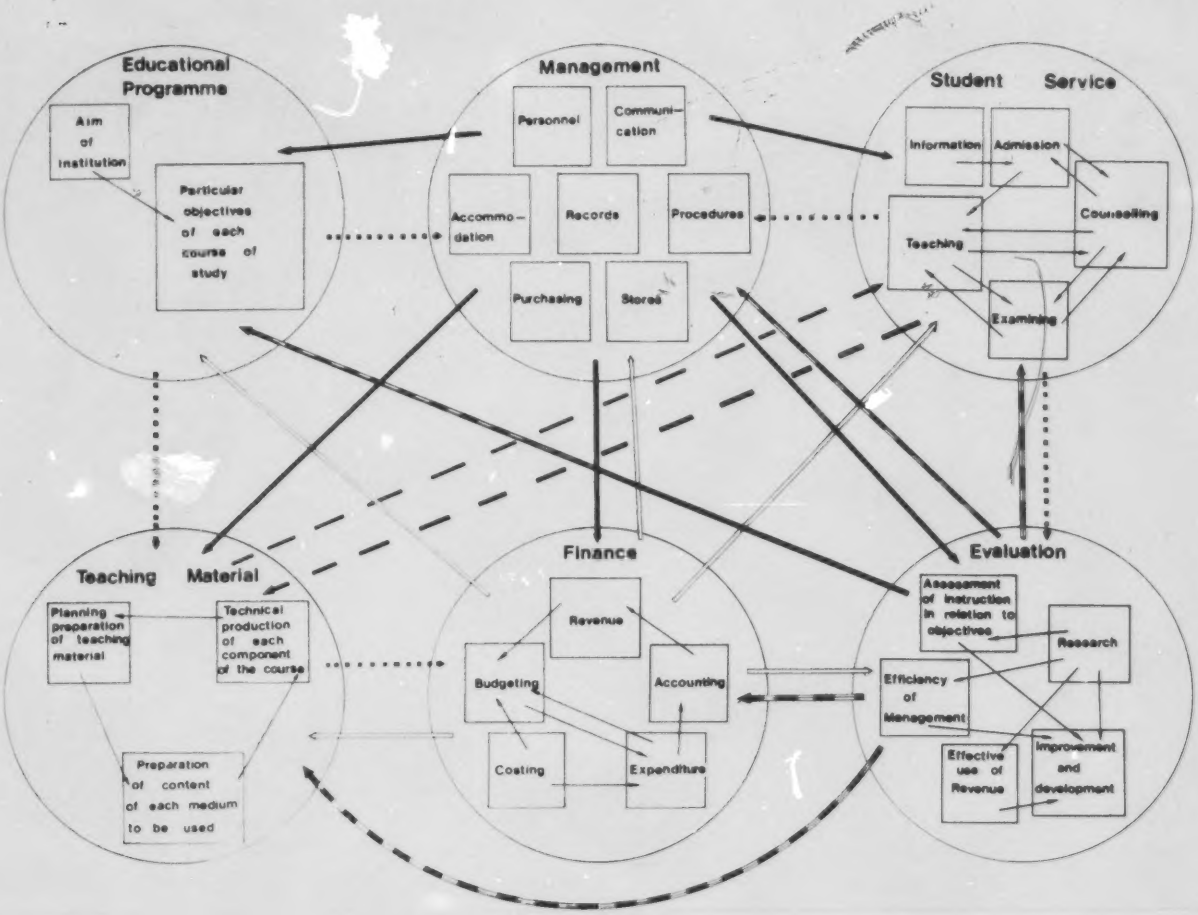
Distance Education – System and Sub-systems



sessed in relation to its objectives. These sub-systems of planning the educational programme, the preparation of its teaching material, service to students, and evaluation, all depend upon financial resources, and on the administrative organization and routines of management. Thus every one of the six sub-systems feeds into, and is dependent upon each of the others in a tightly interlocked relationship, so that the efficient functioning of the whole system depends on the efficient functioning of each activity within each sub-system. For example, the most necessary and best planned educational programme cannot materialize into teaching of a high standard through the most appropriate media unless management can provide sufficient finance to employ all the expert personnel, equipment, material, and services required. Conversely, if lack of finance sets constraints upon the production of the educational programme, efficient planning and management must produce the best programme possible within the resources available. Again, even if the highest quality of teaching material is produced it cannot be fully effective unless the management organizes a student service which adequately meets the needs of the student body. Nor can the most efficient management build an effective educational service if the teaching material is unsatisfactory. Finally, no system of distance education can remain efficient if it remains static. It must be sensitive to trends and changing needs in education, and it must have the flexibility to modify its programme and practices, and to expand in response to the needs of the community it is serving. Manufacturers of cars build in signalling devices which respond to changing conditions, and indicate matters which need attention by signals and warning lights on the dashboard. The evaluation sub-system is the dashboard of the system of distance education. It must be sensitive both to external pressures from the community, and to the internal problems which will arise from the malfunctioning of any one of the sub-systems. The total system will remain effective only if its development is constantly guided by evaluation.

Evaluation is of course vital for the effective development of all educational programmes and methods, but in the system of distance

11

education we are particularly well placed to carry out research and to evaluate our work. The techniques of our method require that almost all our teaching material, both written and oral, must be recorded for communication by one or more media to our students. Most of the reactions of our students are recorded in writing or on tape. The operation of our student service requires us to maintain records of student progress and achievement. In fact, in the normal routine of our daily work there is progressive accumulation of the raw material for research. And with today's growing recognition of the need for evaluation finance is becoming more readily available for research personnel and equipment. Consequently the results of more research studies in established institutions of distance education are being published, and the educational planners of institutions being newly established are building into the designs of their operations special procedures for the retrieval of the information essential for both progressive and periodic fact finding. Moreover, not only have we the advantages of ready raw material and the encouraging climate of contemporary thinking, but electronic data processing can now speedily extract the information we are seeking. We are, therefore, in a promising position to accelerate research and evaluation of the system of distance education, and should ask ourselves to what purposes we should direct our efforts to produce the most useful results.

CAN EVALUATION BE MORE FRUITFUL?

Perhaps we could investigate profitably how we could make more fruitful use of the evaluation sub-system itself. Each institution will be primarily concerned with evaluation for internal use to improve its educational standard. However, as many of the results of its research and evaluation will have wider implications each institution in the course of its normal work could be a laboratory making contributions to coordinated research programmes. In 1965 Mr. Kurt Graff pointed in this direction in his lucid and forceful address to the Seventh International Conference of the International Council on Correspondence Education. He said:

> "What is to be done?"
>
> (a) We must encourage all kinds of research work, both quantitative and qualitative.
>
> (b) We must define research areas.
>
> (c) We must be aware that research does not only improve the schools' work but is a contribution to pedagogics as a science.
>
> (d) We must tend to become more problem conscious.
>
> (e) We must establish research centres – within schools up to centres working on an international world-wide level.
>
> The point is to put this knowledge into practice."[7]

The ICCE has already laid some foundations towards the international coordination of research into distance education through the work of its Research Committee which has borne fruit in research reports to previous conferences. These reports have described studies made by individual institutions, and analysing the reports you find a changing pattern of interest. Early research showed interest in comparative studies of student achievement through distance and resident teaching. Then appeared results of comparative studies of the effectiveness of the different media, or different combinations of media, used in distant teaching. More recent studies have sought information about student characteristics, student reactions, and completion rates. Many of these studies, however, have been done on a small scale, and the research techniques and procedures have varied. Therefore their findings have given information about particular institutions working in particular conditions rather than about the total system of distance education and the functions and interaction of its sub-systems. Could not the ICCE now move forward from the analytical reporting of various independent studies to establishing machinery for coordinated research to be carried out by a large number of institutions? These institutions should be able and willing to participate in a programme of research which in addition to information about the participating institutions would yield positive findings for the evaluation of the system of distance education as a method.

If such a project were undertaken an essential first step would be to identify and agree upon rewarding areas of research, to agree upon priorities, and to agree upon the uniform techniques and procedures to be used in each investigation, or experiment. In this way clearly defined blueprints for uniform practices in research and evaluation are established and followed. This fundamental preparation would in itself constitute fruitful analysis of our tools and methods of research. Such coordinated research is a long term project to be given continuity by an organization, such as the ICCE, which outlives individuals. It could only advance slowly by small steps, but if well planned and controlled it would continue to add cumulatively to our knowledge of the methodology of distance education and to an assessment of its effectiveness. Thus the evaluation sub-system of distance education working through individual institutions would give us not only information about individual studies but also evaluation of the method based upon a number of coordinated research studies. We should be extending the value of much of the work which is already being carried out in the course of our daily work flow, and making more fruitful use of the evaluation sub-system from which all other sub-systems need direction.

IS THERE A LANGUAGE OF DISTANT TEACHING?

Within the sub-systems of the preparation of teaching material and student service and their interaction there are vast possibilities of investigating and assessing the effectiveness of the teaching material we have been and are producing, and of experimenting with new techniques of preparation, presentation, and assessment of student reaction. As educators in distance education, are we giving the independent learner what he wants and needs? What can we give him? Why does the independent learner not find complete fulfilment of his needs in books and the mass media's dissemination of informa-

tion? Why does he want the two-way communication which is usually a feature of distance education? What does the dialogue between the educator and the independent learner give him? What are the characteristic features of this dialogue? How do the sub-systems in distance education interact to sustain this dialogue? Through what media can it be channelled? Of wat components does it consist? Is there such a thing as a "language of distance teaching"? And could we analyse it and improve its effectiveness? In planning a systematic analysis we should have to isolate specific components for research, and from value analyses of these components gradually synthesize a greater knowledge of what we are doing, how we are doing it, and how we could do it more effectively. We could, for example, take as one component for analysis the pictorial communication we so often commend. Do we yet fully understand how to use pictures so that independent learners can read accurately what we intend our pictorial illustrations to tell them? Andreas Fuglesang's revealing analysis of "pictorial illiteracy" is pertinent and significant.[8]

IS THE DISTANT STUDENT ACTIVELY PARTICIPATING?

Another component for possible investigation is the degree to which we involve the distant student while he is studying our prepared teaching material in active participation other than passively reading, listening, or watching. We are accustomed to believe that active student participation is an important factor in good classroom teaching. Consequently integrated into the teacher's presentation are tasks performed by the student which call forth his active participation in searching for information, organizing it, applying it, and practising skills he is learning. How do we ensure similar active participation by the distant student? Moreover, in the classroom situation the very presence and demands of the students motivate the teacher and call forth a reaction from him. There is mutual stimulus, and mutual structuring of the progress of the teaching - learning process. In the distance teaching situation the tutor preparing the presentation of teaching material lacks the stimulus of the presence and immediate reaction of his students. He has to try to place himself in the position of the distant learner, and imagine what his reaction will be. He has to avoid monotony in presentation, and devise techniques of preventing the student from sinking into a passive state in which he assimilates little of what he is trying to learn. Would it not be interesting and challenging to analyse samplings of teaching material being used in distance education, in order to categorize the techniques which we are using to involve the independent learner in the active participation which helps him to "learn by doing"? From this foundation could we not develop further techniques for this purpose to give greater variety and liveliness to our presentation?

FUNCTIONS OF TEST AND ASSIGNMENTS

Again we often use self-check tests within our teaching material to help distant learners to assess their progress, and to give them some immediate reinforcement within a unit of presentation. We also give the independent learner assignments of work to come back to his tutor for comment. The purpose of the assignments is to give the student immediate practical application of what he has learned, to further reinforce his learning, and to enable his tutor to assess his progress. These assignments sustain the dialogue between the tutor and student by providing the opportunity for any necessary individual tutoring and for encouragement. Are we making the most skilful use of tests and assignments? One of the most challenging features of distance teaching is devising techniques to test the student so that the process helps him to learn, and helps his tutor to help him. In the science of pedagogy the techniques of testing require intensive study. Do we at all times have sufficient knowledge about the techniques of structuring objective tests, the variety which can be used, and their suitability in relation to the material to be tested and the purpose to be achieved? Do we always define the objectives of a particular test and structure the type which will fulfil these objectives? Are we setting a test to test memory only, or do we want it to test the student's power to reason? If so, how do we structure an objective test so that it does involve the process of reasoning? And when we are preparing assignments do we design them to hold the student's interest as well as to fulfil our other objectives? Do the assignments motivate him to further progress? Would it not be a fruitful research study to evaluate the effectiveness of different kinds of tests and assignments in relation to different types of students, different purposes, and different types of material and presentation in the dialogue of distance teaching?

EFFECTIVE USE OF TEACHING MEDIA

Because technology in the twentieth century has given us a variety of media which we can now use as channels of communication in distance education we are becoming more and more engaged with the complexities of using these different methods of reaching the independent learner. We want to know more about how to use each channel of communication to achieve its greatest effectiveness, and how to combine two or more for the best results. Studies already completed and experiments now taking place are providing material for the evaluation of the effect of different media. From this evaluation and from the results of experiments with various combinations of media we have much to learn.

Some years ago the University of New South Wales in Australia gave some distance education courses for students who had qualified to enter universities, but for the degree studies they intended to pursue they needed some intensive preparation in mathematics and physics. These courses were called correspondence courses but lacked the element of two-way communication which we are accustomed to associate with traditional correspondence teaching. Lectures and demonstrations were given by television, and anyone who made the simple attachment to his television set which enabled him to receive the University's Television Station could receive this instruction.

Those who enrolled for the correspondence course by paying a fee received in addition printed teaching material. Thus the course of instruction was given by the combination of two media – television and the printed word and illustration. There was no provision for the return of assignments to tutors for comment and additional individual instruction. In this case the independent learners were highly motivated by circumstance and had a limited time – about three months – in which to achieve their aim. These courses were popular and enrolment figures were higher than were anticipated. A follow up of the later achievement of students who completed them, compared with the achievements of students of similar background who had not taken the courses, would have evaluated their effectiveness. Here, too, was an opportunity for research into the effectiveness of media of communication if the reaction of three groups could have been compared – those who watched the television presentation only, those who watched television and received the printed material, and a third group who returned worked assignments supplied to add two-way communication.

In Tanzania large scale radio study group campaigns are being carried out and evaluated. In 1973 a mass health education programme MTu ni Afya (Man is Health) – aimed at reaching one million adults resident throughout the country, and, in fact, reached nearly two million. The media used were radio broadcasts supported by illustrated booklets, including study guides, of which one million were printed and distributed. Seminars were held to train study group leaders and leaders' manuals were printed. There were 75,000 study groups organized. The evaluation of this mass education campaign has been published.[9] A similar campaign for mass education in nutrition – Chakula ni Uhai (Food is Life) – is now being launched. The success and popularity of these and similar large-scale adult education schemes should be taken as pointers to a field of study and consequent development of distance education frequently overlooked and sometimes looked down upon. The study group is well worth investigating as a promising partner in a distance education exercise. What could be done to improve and perhaps expand the techniques of group teaching?

Coordinated comparative study of such programmes, and of future specifically designed and controlled experiments, would help us to learn more about the effectiveness of the different media of communication and to discover the most effective combinations of media. However, in seeking what is today often referred to as "the best educational package" we must remember that in every case "best" must be related to circumstances – the nature of the potential student body, the technical equipment available, and the kind of communication possible. To learn from research what would be the ideal "package" would be valuable, and there would be some areas and occasions when it could be used, but the real value of our research and evaluation would be what we should learn as we pursued our goal.

We must always remember, however, that in many parts of the world distance education may be possible through one medium only and that this limitation does not restrict its usefulness. Let us not forget that distance education won recognition through the traditional correspondence course which required that the student should have no more than paper and pen – the simplest and least costly equipment. In many areas the traditional correspondence course still remains the medium which can reach the greatest number, and if one builds into it modules requiring technical equipment it may restrict the number of people who can use it. However, the traditional correspondence course does require the student to be able to read and write, or if he does not already have these skills he will need a person who has them to help him. In this situation he is not completely independent. Radio has given us distance education for the illiterate independent learner provided he has access to a radio receiver. And the transistor radio has further extended the perimeters of distance education. The field for research leading to the evaluation of the usefulness of different channels of communication is growing ever wider and more complex. Technology advances at astounding speed. Are the distance education institutions prepared for efficient use of the multi-track video-tape recorders? In a not too distant future they may be easily available teaching tools.

STUDY TECHNIQUES AND HABITS

To take another example of a component for investigation we could ask ourselves: How do we help our students to acquire good study techniques in distance education? How do we teach them to make the most profitable use of their available time and facilities for study? Do we train them in good study habits? Analysis of this component, I am convinced, would be educationally both challenging and rewarding. Some educational institutions issue to their students, at the beginning of their courses of study, booklets about study techniques, but how much help do such booklets, often theoretical rather than practical in content, give to the independent learner? Students tend to find it boring to read about study techniques, and after preliminary scanning to set the booklet aside seldom returning to it as their studies progress. Personally, I believe we can achieve more by teaching study techniques indirectly if we build into the teaching material tasks for the student which will develop in him helpful habits of study. To take one very simple example, we know that he is unlikely to learn to select and retain essential information by unguided reading. We may, therefore, ask him while he is reading a certain section of his study material to look for particular facts and write them down. As a result of this task he will produce a list of selected essential points, and will have taken the first step towards making a summary of what he has read – a useful technique for the clarification and retention of information. After this habit has been inculcated we can proceed to the more advanced task of summarizing information under headings and sub-headings, first by demonstrating the technique, and then by assignments checked by the tutor until the techniques of selection and organization have been mastered, and the habit inculcated. If we aim to teach indirectly, through the demands of the teaching material, techniques and habits of study

then we must define the objectives of each unit of our study material in terms of both what it is to teach the student, and how it is to train him to learn. The material subsequently prepared should be designed to take the student through graded activities programmed both to teach him the subject content and to develop study skills.

Some years ago a mature age university student, who had qualified to enter the university through very demanding correspondence courses wrote to tell me that following a highly successful first year of resident study in a degree course a student adviser had sent for her to ask her to what she attributed her outstanding achievement. She said, "I told him that throughout my university year I had continued to study in the way that my correspondence courses had taught me to study, because they had shown me not only what to study but how to study." And this is not an isolated case of success. Dr. Gayle B. Childs reporting to the Eighth International Conference of the ICCE said that the evidence of studies on achievement of correspondence students showed that "students enrolled for instruction by correspondence study achieve as well as students enrolled for instruction by any other methods and when a difference does exist it is likely to favour the correspondence study method"[10] To what extent is this achievement due to the method? To what extent does the method involve the student in study techniques which indirectly inculcate good study habits? How can we measure these factors? Could we analyse study material prepared for distance teaching by various media, and carry out planned experiments to test students reactions? Would these investigations lead to findings which would tell us more about what we are doing to train the independent learner how to study, and how we can teach study techniques and inculcate good study habits more effectively?

INFORMATION – COUNSELLING – FINANCE

Within each sub-system of distance education and within their interaction are many other components of which we could make value analyses leading to better understanding and more expert operation of the system. In student service we might investigate the principles and practices of the dissemination of information. Here I am using the term information in the sense of statements of fact about the educational programme an institution offers, whom it can teach, how it teaches, and all other matters which students, parents, and employers will want to know when enquiring about the possibility of studying through the institution. What are the policies – and they will vary from institution to institution – by which we define the objectives of information? What is the dialogue of information? To be effective information should also involve two-way communication. An institution must have certain information about an applicant to be sure of giving him the appropriate information for his particular needs and purpose. Are we providing this two-way communication? What are the best methods of providing it? A value analysis of methods of disseminating information would be of particular interest to administrators. And what is the interaction between the two-way communication of information and counselling? When and how do we counsel distance students? Is our counselling fully meeting the needs of independent learners? Would research and evaluation lead to better techniques of counselling? In the relationship of the sub-system of finance to all other sub-systems, and to the whole system of distance education how do we define and measure cost effectiveness? On the actual effectiveness of the educational service to the student? If so, how do we measure educational effectiveness? Can we carry out analyses which would lead to developing a blueprint of criteria for measuring educational effectiveness?

LOCATION OF A DISTANCE TEACHING INSTITUTION

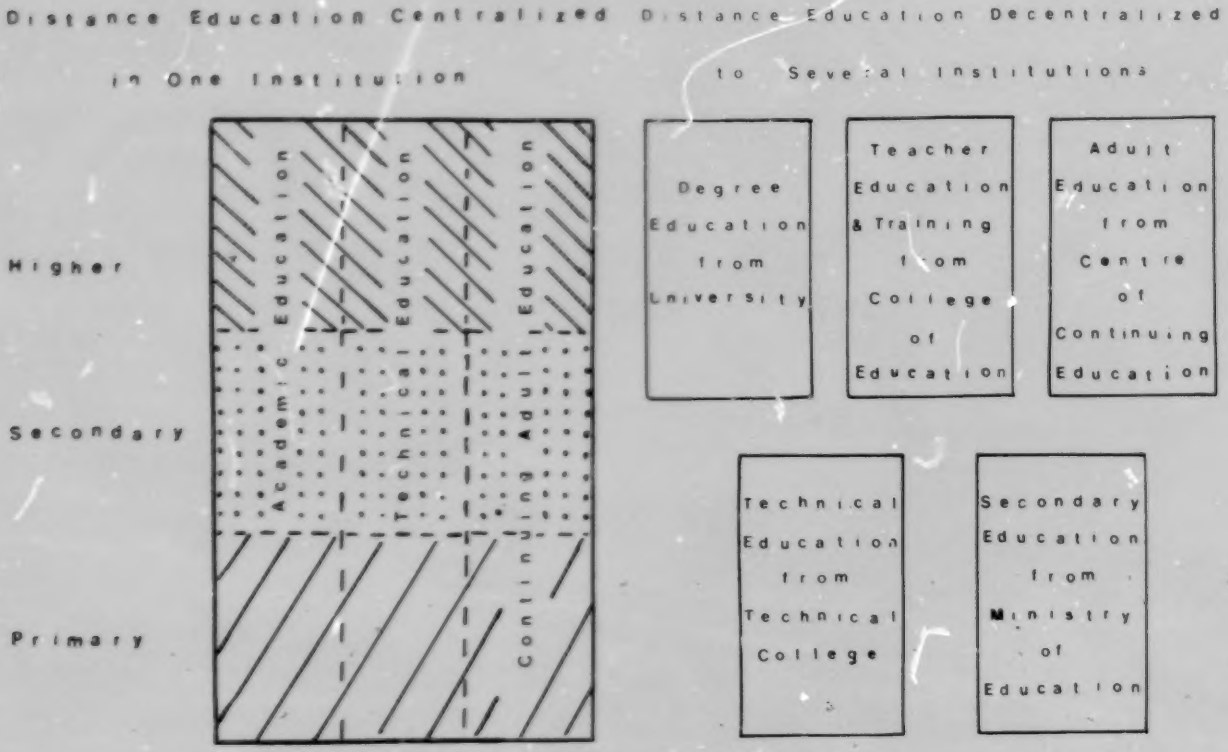
The function of an introductory paper is to focus thought on the theme of the conference. It can raise pertinent questions but the answers are to be sought in the analysis of the various specific aspects of the main theme which will be the subjects of later papers. There are, however, finally three related questions which I want to raise and examine in some detail now for two reasons: firstly because the organization and operation of many established institutions which have developed from the pioneering days of distance education provide us with the ready made material for useful case studies and secondly because the answers to these three questions are of vital importance to the planners of educational systems who to-day are making decisions to establish institutions of distance education.

1. Where should such institutions be located?
2. How should they be integrated into the nation's total educational system?
3. Is there an optimum size for a distance education system?

Many institutions of distance education operate as autonomous institutions completely separated from any other educational activity. Sometimes such an institution will concentrate upon one kind of programme, for example business education. However, an institution tends to expand by adding related courses of instruction, and through these to extend its services by offering an increasingly varied programme. It has gained experience in the method of distance teaching, it has established procedures and routines, and it may have established its own printing facilities. Consequently, it has no difficulties in absorbing the production and handling of more courses of instruction at different levels and in different disciplines.

This development leads to a tendency to centralize. Planners both inside and outside the institution think in terms of centralization on the basis of method. Those inside the institution think of expansion as a development of their own institution, and those outside seeking more instruction for independent learners think of the established institution of distance education as the source to provide it. Thus distance education institutions tend to grow into very large institutions with varied teaching programmes centralized on the basis of

teaching method and the installation of equipment. This tendency to think of distance teaching institutions as autonomous, isolated institutions can be seen in the establishment of some national systems of education of Correspondence Course Units, or National Correspondence Institutions, planned to handle very wide programmes of distance education at varying levels and in different disciplines. Is such a large separate institution centralizing distance teaching the most effective method providing distance education? We should seek a positive answer in comparative case studies of large centralized multi-purpose institutions and of smaller institutions which concentrate on a single stream of distance education.



Would it be desirable to develop distance education with clearly defined levels, disciplines, or purposes within the appropriate institutions of resident instruction? For example, degree education within universities, teacher education within colleges of education, technical education within institutes of technology or technical colleges, secondary and primary education within schools of the Ministry of Education, and informal continuing adult education within centres of adult education.

There are both disadvantages and advantages to be considered. Centralization of expertise in the management of the processes of production and of equipment, is thought to be more economical and to make one able to avoid duplication of equipment and effort. But does it? The greater the volume of production the greater the quantity of equipment required, but must this equipment be all in one place to be producing to capacity? Could not equipment installed in separate institutions be used to capacity in producing both the material for resident and for external students?

Has an institution centralizing distance teaching the resources of expertise required for preparing the content of teaching material in many disciplines at many levels? Most institutions with wide programmes must call upon the services of many part time consultants and technical experts in the preparation of the subject content of their course of instruction, and sometimes these human resources are not readily available where the institutions are located. Would it not be desirable for the teaching material for distant students to be prepared by experts in institutions giving the same instruction to resident students? For example, colleges of education are concerned with the education and training of teachers – both pre-service and in-service. They are staffed by educators trained and experienced in the principles and practices of education. Would it not be desirable

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for distance education courses for teachers to be planned and taught within the programmes of colleges of education?

Morover, teacher education and training does not cease with pre-service training. It is carried on by experience. In-service follow up and refresher courses related to on-the-job experience are needed to keep practising teachers up to date both with subject content and teaching method. Would it not be desirable for the highly trained and experienced staff of colleges of education to coordinate complete teacher education and training programmes integrating pre-service, inservice and refresher training through residential courses, distance instruction, and a combination of both? The decentralization of distance teaching into institutions of particular disciplines would require in those institutions an increase of personnel and equipment, but it would at the same time make more economical use of the expertise of the professional staff who would be reaching a much greater student body. Much of the content of the teaching material prepared could be used both by internal and external students. And greater value could be derived from the capital expenditure on buildings many of which are not used during the vacation periods of the resident students. At these times external students could be accommodated for short sessions of resident instruction.

The teaching of both resident and external students through parallel courses, and in some cases by the multi-media of resident and distance education combined, is now being successfully carried on in a number of universities. Similar methods in other branches and levels of education may be desirable.

IS THERE AN OPTIMUM SIZE FOR A DISTANCE TEACHING INSTITUTION?

Whether distance teaching is centralized into one institution on the basis of method, or decentralized into institutions on the basis of particular programmes, is there an optimum size at which an institution, or service, efficiently operates distance teaching? This question relates both to autonomous institutions and to situations where distance education has developed over a period of time within an educational organization which provides a programme in many disciplines through many separate departments. These departments, or teaching schools, have therefore, two categories of students – their resident and their external students to whom they give the same syllabi of instruction. If this instruction is leading to qualification by examination it is usual for both resident and external students to sit for the same examinations at the same time. In such organizations it is customary for a distance teaching department to operate the sub-systems of management, technical production of teaching material, student service, and finance while being interlocked through the teaching programme with each of the teaching departments it is serving.

The work of this distance teaching department grows in complexity and volume as the organization expands. Established departments offer additional courses, new departments are established, and student numbers increase. To what extent can a centralized distance teaching department, or service, absorb this constant expansion and continue to operate effectively? It is not merely a matter of a commensurate increase in personnel and equipment. The distance teaching department must remain sufficiently flexible to adapt administration to the varying needs of the various disciplines. So many different demands will be put on it from so many different directions that the burden can become crushing, and lead to inefficiency and even breakdown.

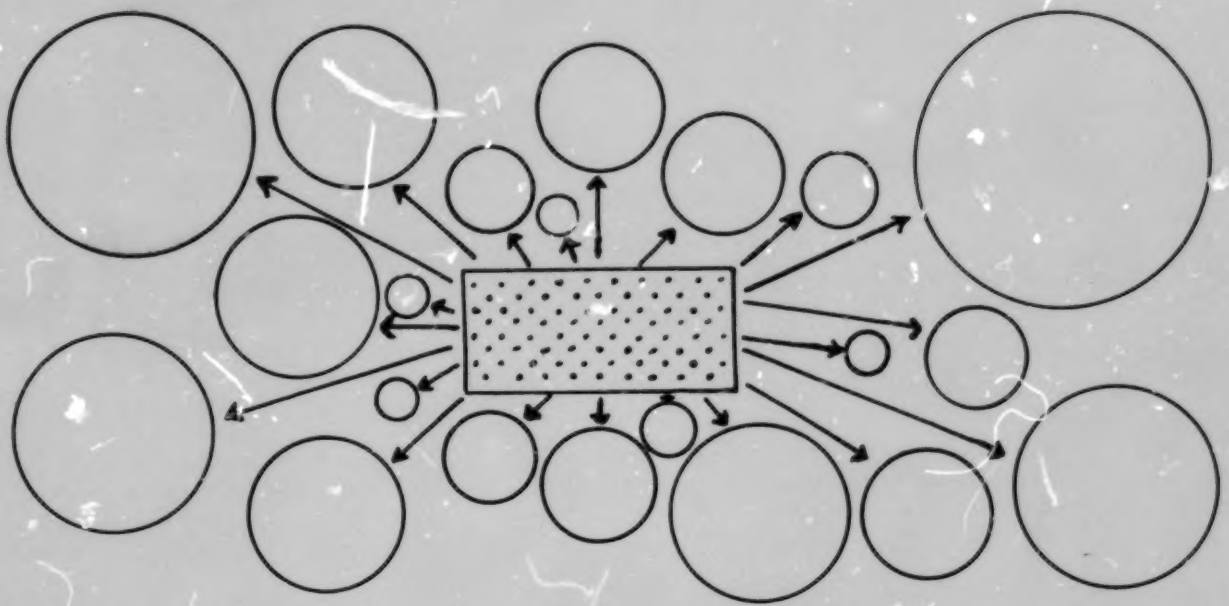
The antithesis of the organization with the centralized distance teaching department is the organization that teaches many disciplines in many separate teaching departments, each of which conducts the whole service for its own external students. Thus the management of the distance teaching is decentralized into all the teaching departments.

Again there are advantages and disadvantages in both types of organization. In the centralized pattern the distance teaching department tends to act as a buffer between the students and the teaching departments which do not receive the direct impact of student reaction, and are sometimes slow to react to it. Moreover, teaching departments are less aware of their responsibilities to their distance students whom they tend to regard as the sole responsibility of the distance teaching department, although its service to the students is in many matters entirely dependent on educational decision and on actions taken in the teaching departments. For the centralized pattern to work efficiently the distance teaching department must have the closest cooperation of all teaching departments which must be so organized that they can give to their distance students the same expert and immediate attention they give to their resident students.

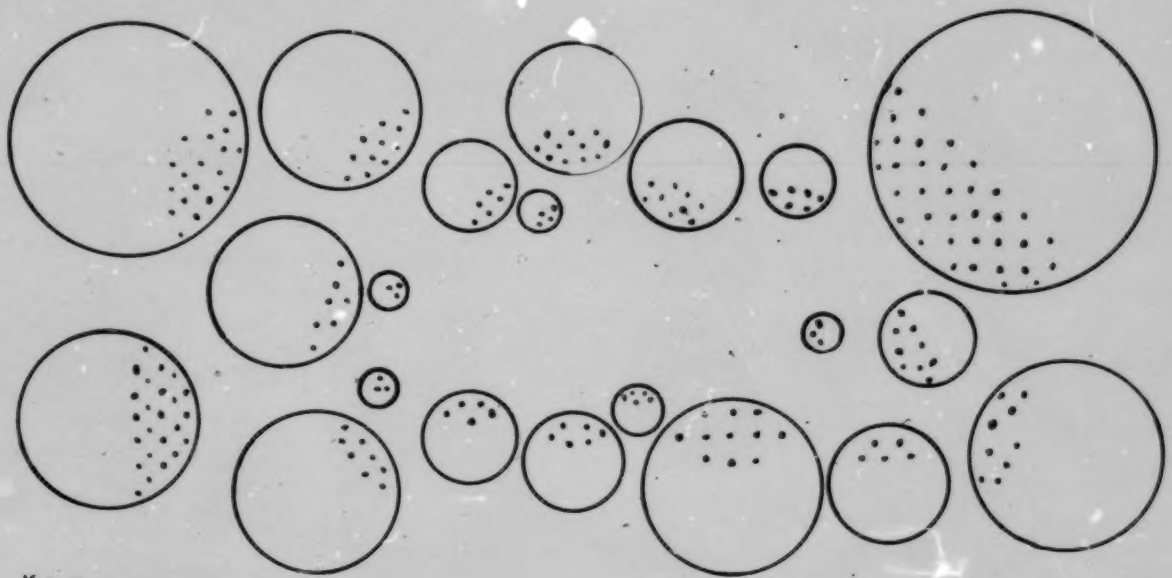
The decentralized pattern means the independent operation of many smaller individual units of distance teaching. There will be less uniformity but does this matter? The centralized pattern can lead to undesirable inflexibility. Each teaching department could develop methods and procedures best suited to its discipline. Some argue that there would be duplication of effort and less efficiency, but there would be a much closer relationship between the actual teaching and the student reaction to it, and would it not be an advantage for the expertise of distance teaching to be more widely experienced among educators?

Perhaps the solution lies somewhere between the two extremes of centralization and decentralization. The distance teaching department could provide such services as information, enrolment, the technical production of teaching material and its despatch to students, while the teaching, counselling, and maintenance of the records of students' progress could remain within the teaching departments. The students' reactions should go directly to the teaching departments, so that they receive the immediate and uncushioned impact.

Distance Teaching Service Centralized



Distance Teaching Service Decentralized



Key

Teaching Departments

Administration of Distance Education

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And today, when placing so much emphasis on combining media to get the most effective educational tool, should we not look closely at the possibilities which the decentralized pattern offers for the integration of resident and distance study? It is customary to believe that some face-to-face teaching helps the independent learner, but to what extent have we considered what help some distance teaching can give the resident student? That it is now appearing as a component of the curricula of some institutions of resident study is significant.

Case studies of the operation of existing institutions can give us value analyses to guide planning for purpose, projected development, location and size of institutions yet to be established, the relationship of the planned distance education to the other branches of education in the national organization, and the integration which may be desirable of available media. We stand today at a point in the development of distance education when we are particularly well placed to make these studies, for we have so much growth behind us, and so much encouragement in the escalation of the growth of demand for distance teaching which we can see ahead. Planners of future institutions need all the information past experience can pass on to help them make wise decisions to prepare for meeting the increasing pressures of the future, and existing institutions may well need to re-assess their organization, and to adjust it to meet effectively the changing demands of the present and future.

TO-DAY'S CHALLENGE TO DISTANCE EDUCATION

Finally, could not the experience of distance education initiate change in the total education system, not meekly adjust itself to changed directions imposed from outside, but actively participate in giving new directions? To-day's challenge to the system of distance education is exciting, urgent, and demanding. What are we – the International Council on Correspondence Education – doing to meet it?

NOTES

1. Alvin Toffler: Future Shock. Pan Books, London, 1971, p. 363.
2. ibid. p. 367.
3, 4, 5. Ibid p. 369.
6. ibid. p. 370
7. Kurt Graff: Research in the Correspondence Field, in Proceedings of the Seventh International Conference of the International Council on Correspondence Education. Stockholm, 1965, p 78
8. Andreas Fuglesang: Applied Communication. The Dag Hammarskjöld Foundation, Sweden, 1973.
9. Planning & Research Department, Institute of Adult Education, University of Dar es Salaam: Mtu ni Afya. Studies in Adult Education, No. 12, June, 1974.
10. Gayle B. Childs: Report of the Chairman of the Committe on Research, in Proceedings of the Eighth International Conference of the International Council on Correspondence Education. Paris, 1969, p. 50.

The Price Policy of Correspondence Education

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The fixing of prices in correspondence education is a complex matter. It is difficult to define and keep separate different types of costs. A certain theoretical background is necessary to discuss this problem in realistic terms. The purpose of this paper is to present a model for detailed income and expense components of correspondence education. Thus, it intends to stimulate thought and discussion about the economics of correspondence education.

1. INTRODUCTION

Correspondence education economy is of a special nature from several points of view.

The goods and services supplied by the seller (the school) consist partly of educational material, e.g. course lessons and/or magnetic tapes etc., partly of the service comprised in correcting a student's assignment. For the buyer (the student) the price of the goods and services is summed up in the course fee.

What price fixing policy should the school follow if these activities are to be profitable?

The conditions of the market determine the price the buyer is able and willing to pay.

On this basis the framework for the costs involved in the production of material, stock-keeping and marketing must be constructed. In addition, such a matter as the student's completion of his studies must be taken into consideration.

In the writer's opinion it is difficult to structuralize discussions on the price policy of correspondence education in practical situations without recourse to a model for detailed income and expense components of correspondence education.

2. PROBLEM

If, as seller, we decide to market correspondence education, what price should we charge for our courses?

We assume that the buyer on this market is willing to pay $30 for educational material + the service implied in submitting 5 student's assignments.

3. STRUCTURALIZATION OF THE PROBLEM

As seller of correspondence education we are obliged to supply two things

1. educational material
2. the correction of assignments and comments on these

We assume that out of the fee payable of $30 a sum of $10 is to be used for the production and stock-keeping of educational material, while the remaining $20 should be reserved for the cost of marketing correspondence education and the correction of assignments.

In what follows the first part is referred to as the material component and the second as the service component.

3.1 The material component

What, then, is required to produce an educational material which the market is willing to pay $10 for and of which it is estimated that 1,000 copies can be sold in one year? The following assumptions are made:

3.1.1 Prime costs

1. An author must produce a manuscript. For this we are prepared to pay $10 per page and estimate that the educational material will consist of 160 pages. The total cost for this will be $1,600 which is calculated in the figure below as a royalty on the sales price.
2. An editor must make the manuscript pedagogically acceptable. We are prepared to pay $5 per page for this. The total cost will be $800, which is calculated in the figure below as a royalty on the sales price.
3. The printing costs for this may amount to a maximum of 30 % of the sales price of $10 or $3,000 per thousand copies.

The prime costs for the production will thus be

		$	per copy $	Total $
Author	16 % on	10	1.60	1,600
Editor	8 % on	10	0.80	0.800
Tech.product.	30 % on	10	3.00	3,000
				5.400
The income will be			10.00	10.000
Precentage allowance to cover fixed costs and profit for educational material component			4.60	4.600
Degree of cover				46 %

3.1.2 Common costs

What common costs are necessary to administer the material component? Let us assume that we require buyers and must pay storage handling and dispatch costs (= depositing in storage and dispatch of the initial material), capital expenditure for investment in stock.

How considerable are these costs? We make the following assumptions:

	$
Buyer and store personnel	10.000
Store space (1 sq.m. per course = $12) minimum	0.400
Capital costs (10 % on invested capital in accordance with 3.1.1)	0,540
	10.940

3.1.3 Result

What profit can we expect to make?

Having studied alternative investments, we decide that we are interested in this activity if we make a profit of at least 15 % of our invested capital. In this example we calculate on the basis of our investment in stock: 15 % of $5,400 = $810.

One course is not enough as this leads to a deficit:

$4,600 – $10,940 = $ –6,340

Assume that the number of courses required is x.

Income = costs + profit

$$10 \cdot 1.000 \cdot x = 5,400 \cdot x + 10,400 + \frac{10 \cdot 5,400 \cdot x}{100} + \frac{15 \cdot 5,400 \cdot x}{100}$$

$ copies No. courses | prime costs | common costs | capital costs | profit

x = 3.2

3.1.4 Calculation of result

If we produce and sell four courses, after one year we can make the following profit calculation for the material component:

			$
Income		4 x 10,000	40,000
Costs			
Author	16 %	6,400	
Editor	8 %	3,200	
Tech. product.	30 %	12,000	21,600
Fixed costs and profit percentance allowance (FCPA)			18,400
Common costs			
Buyer and store personnel		10,000	
Store space 4 sq.m. at $12 but minimum		0,400	
Capital costs 10 % of 21,600		2,160	12,560
The surplus will be			5,840

3.2 The service component

What costs are associated with the service component?

We need a tutor to undertake correction and commenting. Marketing activities such as advertising and an educational advisory service are necessary. The costs of sending new material in addition to students' solutions, including postal charges, must be covered, as also the costs of administration.

3.2.1 Prime costs

Assume that the tutor is paid $5 for correcting 5 answers. Out of $20 the sum of $5 is deducted, leaving $15 to cover other activities in connection with correspondence education.

3.2.2 Common costs

Assume that the cost of advertising amounts to 10 % of the sales cost, but at least to $3,000, that the educational advisory service will cost 25 %, but at least $5,600, and that the office and dispatch costs including postage will amount to 20 % of the sales figure. The cost of premises is assumed to be $400. The desired profit amounts to about 10 % of the turnover.

3.2.3 Result

Assume x registrations.

Income = Costs + profit

$$20 \cdot x = 5 \cdot x + 3{,}000 + 5{,}600 + 0{,}400 + \frac{20 \cdot 20x}{100} + \frac{10 \cdot 20x}{100}$$

$	No. regs	Cost of corr.	No. regs	Adver-tising	Advisory service	Prem-ises	Office	Profit

$9x = 9{,}000$

$x = 1{,}000$

3.2.4 Calculation of result

Given these conditions, 1,000 registrations for the course would be required if the income is to cover the costs and profit. The calculation of the result after one year for a course with 1,000 registrations at $20 would be

			$
Income	$20 x 1,000 regs		20,000
Costs	Teacher $5 x 1,000 regs		5,000
		FCPA 1	15,000
Advertising	3,000		
Advisory service	5,600		
Office, dispatches	4,000		
Premises (30 sq.m.at $12)	0,400		13,000
	10 % of turnover	(FCPA 2)	2,000

3.3 Total calculation

Total calculation for four courses each of 1,000 registrations would be as follows

	Material component	Service component	Total $
Income	40,000	80,000	120,000
Prime costs			
Author etc	21,600		21,600
Tutor remuneration	———	20,000	20,000
Percentance allowance to cover fixed costs	18,400	60,000	78,400
Common costs			
For material component, personnel, etc. (See 3.1.4)	12,560		12,560
For service component			
Advertising 10 % of $80,000		8,000	
Advisory service 25 % of $80,000		20,000	
Office, etc. 20 % of $80,000		16,000	
Premises	———	0,400	44,400
Surplus in $	5,840	15,600	21,440
Surplus in %	15	20	18

The above model is, of course, open to various objections. For natural reasons various simplifications have been effected. If we accept the model we can insert the relevant figures for the individual correspondence school. We can also modify the model. In my view the objective must be to try to establish a bridgehead in the economics of correspondence education making it possible for us to achieve profitability in practice.

4. POSSIBILITIES OF VARIATION

4.1 The student does not submit all the solutions

The above line of reasoning assumes that all the material is sent out and that all the solutions are submitted for checking. In practice a certain frequency of interruption occurs amongst the students.

Let us assume that a student on the average receives all the material but sends in only 50 % of the solutions and pays the whole fee for the course.

	Material component	Service component	Total $
Income according to 3.3	40,000	80,000	120,000
Prime costs			
Author, etc. (3.3)	21,600		21,600
Teacher ($5 x 2,000 solutions)	———	10,000	10,000
FCPA 1	18,400	70,000	88,400
Common costs			
Personnel, etc. (3.3)	12,560	44,400	56,960
Surplus in $	5,840	25,600	31,440
Surplus in %	15	32	26

The sum of $10,000 arising from non-payable prime costs increases the surplus to $31,440 or 26 % of the turnover.

4.2 The student does not send in all the solutions and not all the material is printed

According to the conditions this course comprised material including 5 papers to be answered. We distribute two lessons of the course material the first time and thereafter one lesson at a time on receipt of the solutions to a previous lesson.

Lesson 1)
2) sent immediately after registration
3) sent on receipt of solution to Lesson 1
4) sent on receipt of solution to Lesson 2
5) sent on receipt of solution to Lesson 3

If it has been our experience that a certain frequency of interruption means that a certain amount of material at the conclusion of a course is not dispatched, this can affect the profitability calculation.

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Let us assume that 75 % of the material is dispatched, and we therefore print only 75 %, assuming that this will cost 75 % of the total cost of printing.

We further assume that 50 % of the solutions are submitted and that the students pay 100 % of the course fee.

Total calculation	Material component	Service component	Total $
Income	40,000	80,000	120,000
Prime costs			
Author, editing	9,600		9,600
Tech.product. 75 % of 12,000	9,000		9,000
Teacher remuneration		10,000	10,000
	21,400	70,000	91,400
Common costs			
Personnel (3.3)	12,560	44,400	56,960
Surplus in $	8,840	25,600	34,440
Surplus in %	22	32	29

The sum of $12,000 for non-payable costs for printing increases the surplus to $34,440 or 29 % of the turnover.

5. EFFECT OF PRICE ADJUSTMENT UNDER CERTAIN ASSUMPTIONS

According to 3.3 the surplus was $21,440, but on the assumptions given in 4.2 this surplus becomes $34,440. With a view to our educational philosophy and/or to increasing the volume of correspondence education for example, we may find a downward adjustment of the price advisable.

5.1 The material component

What price should we charge for the material component if the surplus is to be at least $5,840 in accordance with our original calculation 3.3?

Income = Costs + profit

4,000 · x = 9,600 + 9,000 + 12,560 + 5,840

No. regs · price · author etc. · tech. product. · common costs · profit

x = $9.25

In this case the price will be $9.25 instead of the original price $10.

5.2 The service component

The frequency of drop out results in a reduction of the costs by $10,000. What price should we charge for the service component if the surplus is to be at least $15,600 in accordance with the original calculation 3.3?

Income = Costs + profit

4,000 · x = 10,000 + 44,400 + 15,600

No. regs · price · correction fee

x = $17.50

In this case the price will be $17.50 instead of the original fee of $20.

5.3 Total calculation

	Material component	Service component	Total $
Income $9.25 x 4,000	37,000		37,000
$17.50 x 4,000		70,000	70,000
Prime costs			
Author, etc.	9,600		9,600
Tech. product.	9,000		9,000
Teacher remuneration		10,000	10,000
	18,400	60,000	78,400
Common costs			
Personnel, etc.	12,560	44,400	56,960
Surplus in $	5,840	15,600	21,440
Surplus in %	16	22	20

The price reduction can in its turn lead to an increase in sales volume which will affect prime costs, technical production and teacher remuneration.

6. THE PRICE IN RELATION TO THE NUMBER OF STUDENTS' SOLUTIONS

If we have four courses with 1,000 registrations in each case and every course includes five occasions for submitting solutions for correction, the number of marketed solutions will be 4 x 1,000 x 5 = = 20,000 solutions. The administrative item amounted to $80,000 according to 3.3 and the teacher's remuneration was $1 per solution or in all $20,000. If the remainder of the fixed costs per centage allowance is 60,000, the price per solution will be $3, a sum which is to cover the cost of advertising and yield a profit.

6.1 Price per corrected solution

If we introduce the condition in accordance with 4.2, the number of corrected solutions will be 10,000. The administrative costs after correction by the teacher will be $70,000 which, divided by the number of solutions, works out at $7 per solution.

If this factor is to affect the fixing of the price in accordance with 5 above so that the price can be reduced to $17.50 instead of $20, the price per corrected solution will be

$$\frac{70{,}000 - 10{,}000}{10{,}000} = \$6$$

6.2 Fixing of price per solution

	Alternative 1 20' solutions marketed 20' solutions corrected	Alternative 2 20' solutions marketed 10' solutions corrected	Alternative 3 = Alternative 2 incl. price reduction
Income	80,000	80,000	70,000
Correction	20,000	10,000	10,000
	$60,000	$70,000	$60,000
FCPA per marketed solution	$3.00	$3.50	$3.00
FCPA per corrected solution	$3.00	$7.00	$6.00

This section has been included in order to elucidate some difficulties in answering questions such as "What fixed costs percentage allowance does a solution yield (or what does a solution cost)?" Before replying, however, we must define what we mean by a solution in this context, as has been done above.

7. SUMMARY

The fixing of prices in correspondence education is a complex matter. It is difficult to define and keep separate different types of costs. A certain theoretical background is necessary to discuss this problem in realistic terms. This contribution is intended to stimulate thought and discussion about the economics of correspondence education. Can those of us who are engaged in correspondence education including its economy master its income/costs relationships by means of structuralization along these lines or should the problem be tackled in another way?

Carte Blanche to Organize the Ideal Distance Education Institute

– for Diversified Education in an Industrialized Country

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This paper attempts to wed a theoretical proposition to a real-life situation. It discusses briefly the philosophical tensions within the title and then describes the society in which this proposition is under current discussion.

The model chosen for the institute is that of a clearing house. The paper defines three component parts in the distance education process, namely, the teaching resources, the learning needs population and the facilitating distance education institute.

Attention is given to a broad description of the various aspects of the institute and how it relates to the integration of teaching resources and learning needs. The essential functions of the institute are to define resources, to identify needs, to publicize opportunity, to counsel aspirants, to research into data, to engage in curriculum development, to support experiment in teaching and learning techniques, to encourage and augment media production, to exercise responsibility in attaining distance education goals in political-cum-educational debate.

This paper makes only an attempt to get to first base. The paper has not been written in the stylized air-conditioned serenity of the academic's study, but in the midst of a community clamouring, with mixed interest, for an 'up-grading of external study'. An exploratory committee has begun work.

The author of a paper on this topic is desirably an exceptionally tall, lean man. He must be tall enough to have his head in the clouds yet not so mystical that he does not have his feet on the ground; lean enough to present a slight target to all his assailants of his theorizing, from whatever front they attack.

'Today, lifelong learning is primarily a matter of individual choice or occupational necessity. Tomorrow, it must be an experience available to all. Therefore, educational planning must take lifelong learning as a basic assumption.'[1] If we accept these categorical words, from the Worth Commission of Alberta, and accept that distance education is ahead on the tack suggested by Perry: 'It's important to get across to people who are thinking of using this sort of system that you have to start big . . .'[2]

However, before we proceed further, we need to understand more fully what I am writing about and why. There are inherent contradictions in the title of this paper that need to be clarified.

'Carte blanche' assumes a situation of no impinging expectations and restraints, yet the fact that this institution is to be established in an 'industrialized country' pre-determines that there is a complex sociological structure already established in the society. Further, this same society will have a variety of styles of 'education' already operating, covering the professional, trade and support skills needed for its maintenance.

Another area of inherent conflict arises from the correlation of 'distance education' and 'diversified'. On the one hand the word, 'diversified', acknowledges that somehow education in this industrialized country has been reduced to a stifling sameness; on the other the correlation implies that 'distance education' can be the executed apart from the learning behaviours, including those that in ambassador for 'openness' in education. It is not my intention to spell out the dimensions of the stifling sameness, not to explore the relationship of 'distance education' and 'openness'. Suffice to say that, while I see distance education as developing one area of openness, I do not see the terms as at all synonymous and I would add that both concepts suffer restriction if a close parallelism is forced on them. In defining distance education, I would build from Moore's definition: 'Distance teaching may be defined as the family of instructional methods in which the teaching behaviours are executed apart from the learning behaviours, including those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be facilitated by print, electronics, mechanical and other devices . . . the more effective the bridging, the less the distance . . . a learner's 'distance' is not measured in miles or minutes. It is defined as a function of individualization and dialogue.'[3]

I choose not to see 'institute' as a building complex, but rather described in the words of Garner as 'a system or framework within which continuous innovation, renewal, and re[illegible]th can occur.' [4] I adopt this fluid model since, as mentioned above, I see distance education as one vehicle for promoting openness. My institute is essentially a telephone exchange, a clearing house, a middle man between identified teaching resources and learning needs.

Let me then describe the country in which I am to establish this institute. I live in Australia, a country of three million square miles and a population of thirteen million people. It is a country almost the same size as USA but with one sixteenth of its population. It is a country with the same population as Holland but is two hundred and thirty times its size. Of its thirteen million people 65 % live in the eight state capitals, partly because 81 % of Australia is described as arid or semi-arid, where effectiveness of precipitation is low. Some distance education students live on cattle properties the size of Great Britain – needing to be that large to be economically viable. It is also in these areas that much of Australia's raw mineral resources are located. This location of resources necessitates that large capital sums of money must be outlaid to provide reasonable living standards for the mining population. One illustration of the problems is Coober Pedy, where the precious gem, opal, is mined. Here some people have houses dug out underground to escape the constant summer temperatures of 40 °C+. Meantime, of course, we too have the phenomenon of 'the lonely crowd'.

So, when Australians talk of ideal distance education, they are attempting to satisfy the needs of people living in extreme personal isolation on cattle and sheep properties; the needs of those living in sparsely-settled farming communities, who have access only to a local school, store, hotel and post office, but not to a public library, TV, or theatre; the needs of those living in small isolated communities huddled around a rich hole in the ground which produces millions of dollars annually; and the needs of those living in the midst of vast crowds, but living in comparative intellectual and psychological isolation in the industrialized metropolis. An increasing outreach is being made to those, not otherwise disadvantaged, but who simply prefer to study using the methods of distance education.

In summary, Australia could be described as an industrialized community because of its resources, but, because of its vast inaccessible areas and limited population, as a developing country. It is in this context of extremes that our ideal distance education complex has to be established.

THE TASK

The total teaching/learning operation would consist of the three aspects of the teaching resources, the learning needs and the facilitating institute; and it seems appropriate to discuss each in turn – provided we are aware at the outset that the main discussion will focus on and emanate from the nature and role of the proposed facilitating lynch-pin.

TEACHING RESOURCES

Since Australia is already straining at the limit with a heavy capital expenditure in post-secondary educational institutions, it is proposed that teaching staff should be co-opted largely from existing institutions. In many cases these staff are already engaged in the area of external study programmes and their continuing voluntary involvement would be welcomed. However, any contract to support external study would be seen as part of their total commitment within their employing agency.

Co-erced co-operation of individual or institution would need to be avoided – if for no other reason than that the neonate ideal institute could be crushed under the resultant power-play of the other institutions before it had established itself. Over time, opportunity should be taken to suggest to established institutions that it may not only be to students that the second chance is being given. Provided involvement in distance education is not seen as a stop-gap solution to long-term problems, it may mean a new sense of fulfillment to some otherwise ossifying institutions. As Houle suggests ' . . . the creation of a pattern of service can also cause profound changes within the institution itself . . .' [5] In addition, learning resources need to be identified in Coombs' terms of 'non-formal and informal' [6] since ' . . . for the overwhelming majority of adult needs, 'tailor-made' programs are necessary . . . since the educational needs of adults are derived from work problems, or problems arising in the course of personal growth.' [7]

LEARNING NEEDS

The learning needs related to the institute would be the unfulfilled potential of all those persons unable to satisfy their educational needs through access to present institutions and their existing programmes. It has been said for example that with adults there can often be incompatability between the need to earn and the need to learn.

Some people needing the services of a distance learning institution have to struggle with the crisis defined by Erikson as autonomy versus shame and doubt. In many cases the crisis has not been resolved in past years and the re-emerging student has to grapple with it. Often, a system which rigidly requires a mature student to methodically pass through all the childhood and adolescent steps of education is unnecessarily restrictive. Further, a society which countenances the notion that countryfolk belong to the village idiot class will deny itself the benefits of a countryfolk rich in unhurried wisdom. A society which self-righteously denies new learning opportunities to its teenage drop-outs merely educates them to be adult criminals. Yet, balanced against this, is the question from

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Morris, 'Are we now trying to attract those to college who either are not equipped for it or who do not want it?'[8] Livingstone asks further, 'How can the relevance of change efforts to actual mass grievances and aspirations be assured when the initiating group remains limited to the presuming few?'[9]

THE FACILITATING INSTITUTE

With these brief summaries of teaching resources and learning needs, we move to the core of the paper, namely, how does the ideal distance education institute fulfill its task, given many more than just the few constraints mentioned thus far?

1. Establishment policy

Recalling Walter Perry's 'think big', it would be important at the outset to draw up an imaginative blue-print of potential developments. As Perry warns, short-term diseconomics may have to be tolerated. 'Think big' does not necessarily or solely mean aim for a huge enrolment in every subject though. Adequate initial funding is essential, so that, on the one hand, there is an unequivocal commitment to the scheme by the government and, on the other hand, similar educational institutions with parallel or even competing interests realize that no ignominious step-sister has ventured on to the stage. Emerging from this second point, such an unequivocal declaration of intent from the government on behalf of the community of interest should demand a declaration of involvement or noninvolvement of similar clarity from institutions containing pockets of teaching resources. The distance education institute cannot be humbugged by austere institutions mumbling about intrusions into their autonomy. No one is making substantive take-over bids for any established institution; and, if any feel threatened, it is probably a reflection of already existing feelings of insecurity and inadequacy. If any institution chooses not to co-operate, that's fine; at least all parties know where they stand.

The ideal institute however would need a top-quality management committee, so that its voice could be heard in the market place by potential suppliers, clients and servicing agents. It would also need such a committee to foster diversification as much as possible. However, because such top quality management would tend to be from present positions of power in other educational institutions, it would be imperative that a proportion of the management committee had power, but no such vested interest, to hold extended the limits of possible diversity against the convergent constraints of the interests of the other institutions. The principle of a partially rotating membership would also contribute to continuing diversification.

Further, as part of establishment policy there must be the guarantee of a substantial continuing grant. Morris sums it up aptly when he says "'Great expectations' is part of the Grants Syndrome . . . . Just as the organisations are beginning to function, the grant runs out, in three years or so, and the great expectations of the people involved are dashed."[10]

Allowing for this 'great expectations' budget must itself deliberately be an understatement – if the experience of Britain and Holland are repeated. The British Open University experience is common knowledge; but the Dutch experience is a direct comparison with Australia. Keith Rawson-Jones cites Holland – ". . . a country approximately two hundred miles long by one hundred and fifty miles wide, with a population of about 12.5 million. At the end of 1947, about 90 000 students were following a correspondence course. By 1960 the number was 420 000. A further enquiry . . . is expected to show a further massive increase.'[11] The Draft Open Tertiary Education Report[12] cited an Australian University and College of Advanced Education external enrolment for 1973 of 14 000 with a conservative projection of 45 000 by 1983. This is by no means the total figure of those doing external studies, but it still leaves a vast potential market to be serviced, should it emerge, as is likely. One other policy matter on which this management committee must have a continuing brief is the question of transferability of credit. Only this committee could bring the necessary pressure to bear on large institutions rightly jealous of their autonomy and traditions.

Having stressed how crucial is an initial and imaginative 'think big' stance, then let us project some of the areas of detail that would emerge.

2. Public Relations

Is it a trite truism to say that, if you've got something to sell, then you'd better put up a 'For Sale' sign? The 'public' need to be advised that pressure on politicians has occasioned a response. They need to be told that an informed élite has engineered something for their benefit and they should be invited to formulate requests for courses! (This is a very delicate operation. So often the consumer has to be 'educated' before his articulation is taken seriously – by which time his refreshing naivety has withered, then institutions are able to tell students that they want what the institutions have to offer.)

However, the public need to be encouraged to take pride in the new institution; in the exercise of brainstorming with its lack of premature rejection, ideas should be invited; potential students should be interviewed; the government will need to be re-assured that it has done a good job and gained a few more votes; other institutions will need to be placated if perchance territorial rights have been threatened. Feedback channels will need to be established and tested for reliability.

While the public relations exercise is gathering momentum, massive work will be under way in other areas by way of developing administrative procedures, counselling services, course outlines, research programmes, course presentation facilities, student services etc. Let us look at each one in turn.

3. Administrative procedures

Admission, enrolment and examination policies and procedures must be precise. Appropriate forms must be designed. The institute staff at least must be au fait with all the implications of these policies. Flow charts of work, lines of administrative authority must all be available to the relevant persons. Mailing routines, record-keeping procedures must be ready to roll, when the starting button is pressed. Finance control and budget procedures must be spelt out to all concerned. Such things as the provision of transport facilities for staff and materials must be sketched out: where will commercial airline services be adequate, when must smaller aircraft be chartered, in what places must four-wheel drive vehicles be used etc. In short, all decision-making procedures in all these areas of activity must be exercised, clarified, then practised.

4. Research services

The research group will also be active before the front doors are opened. They will liaise with the public relations group to anticipate and, hopefully, predict public needs. They will liaise with the administrative task force to guarantee adequate initial data collection. They will liaise with the finance group to prepare costbenefit analyses. They will liaise with the learning resource groups to identify what resources are actually and potentially available. They will engage these people in tentative curriculum development programmes. A teaching function may be required as learning resource staff are initially oriented to their clients.

In conjunction with all these activities they will collate resource material to bring into all of the above discussions.

5. Counselling services

These will be needed to meet the first batch of enquiries. Much initial counselling may be almost therapeutic, as people will need attitude clarification in most cases before they need career and/or course counselling. This is not unproductive time, as subsequent wastage is a major problem in much of distance education. Much handholding of both students and lecturers may be done in conjunction with the research group. Counsellors may well become ombudsmen and the experience of the Open University in the area of counsellors and tutors must be weighed.

6. Courses

Bearing in mind Lord Ashby's reported remark that 'a degree should be like a passport that had to be renewed every five years, so that graduates could keep pace with the rapid transformation of knowledge' . . . it is to be hoped that the initial stages of policymaking will have determined in broad outline how much of the resources of the institute are to be channelled into the various levels of study. Presumably there will be components of secondary and post-secondary and post-secondary courses. There will be undergraduate and post-graduate extension courses. There will be bridging and threshold courses, some maybe even at the primary level. There will be credit and non-credit courses. There will be large elements of formal and non-formal education, with the inevitable elements of the informal. Since our State has reasonably well-established distance education facilities covering primary and secondary course, I do not see it as paramount that the institute provide these services; however it may be expedient to function occasionally under the Comfort model where 'to further minimize time required students should have the facility under faculty direction to undertake 'blocks' of learning instead of progressing on a course/credit basis.'[13] Such a facility should be available at all academic levels.

While there is some discussion about whether or not some courses are to be examinable and/or for credit, what interests me more is what I see as the growing fashion of course writers themselves being under examination. I see a trend towards the emergence of a buyers' market, whereby a more mature och articulate student population will exercise increasing discrimination in their selection of courses. For these reasons I do not want the institute to have direct involvement in the course preparation activity. It is better that we go on the open market and buy our courses from the best local supplier or else buy a better imported good. I see the institute, in this operational model, being best able to suit the needs of the student population and best able to command optimum output from the course writers – always provided it does not get waylaid by the representatives of the other institutions within its own management committee.

7. Course presentation techniques

The institute would through its curriculum development branch of the research group liaise with and advise all the learning resource personnel. Techniques of TV, radio, audio-tape, film, slides, graphics, VTR, computer, telephone, the Verb etc., are all already being used by at least one of our co-operative institutions. The WATS telephone system of ICS, Scranton, Penn.,[14] is the only significant system, to my knowledge, not currently in use in Australia. All of these media facilities are resident at the several institutions nearby and I contend that the ideal institute should not be involved in establishing its own resources and skills in these areas. Rather, we should simply buy production time and hire facilities, where needed.

However, since in some cases the media facilities will not be located at the same institution as the teaching resource personnel and in some cases, even if they are, neither will be acquainted with the other, and, since many of our existing institutions are very thinly staffed with personnel with producer-director skills, I argue for the recruitment of such a producer-director team, who, hopefully, will have between them a broad spectrum of academic interests as well as the detailed technical skills in the use of the media.

Two constraints control our use of media. Firstly, the vastness of the country makes it impossible for TV and radio to cover the student population. This requires resources to be prepared also in support media form, i.e. VTR and/or audio-tape. Second, many of our students have very limited play-back facilities – in many cases, just a battery-operated tape-recorder.

This is one of the reasons why we still rely very heavily on the printed word for the presentation of materials. Thus all of our institutions have printing facilities upon which we could draw. One extra comment however, is justified: One of our support institutions has elaborate printing facilities and produces very excellent 'lessons'. 'My' ideal institute holds the value position that, while visual niceties are helpful, they are not essential to the maintenance of the interest of older students who, inter alia, 'will help end the in loco parentis atmosphere of many campuses, add maturity to discussions, and make a more balanced community out of the college.' [15] In the same way they only infrequently need the point by point development of the 'lesson'. Nevertheless the experience of the Open University shows that attractive books pay their way – it's all a matter of degree.

8. Support services

Within ready access to the proposed centre we have several institutional libraries. One of these, a municipal facility, has a complete division nominated as the External Students Collection. The collection services external students exclusively and through this collection they also have access to the whole resources of the State Library. Books are railed at a discount to country students and, in some cases, air-mailed.

Through the learning resource institutions we also have access to residential facilities for vacation schools; and bus services to transport students between centres or on field trips.

A co-operative bookshop is currently providing discounted book purchase facilities to students and it could continue to provide these services.

Within the new complex, amongst other facilities, I would include a second-hand book store, media playback facilities, babysitting services, common rooms, a cafeteria, seminar, tutorial and interview rooms and parking facilities. Because regional facilities should be established either by way of new constructions or leasing of existing premises, I would promote the diversification theme by encouraging kindred institutions to use our central and regional facilities too.

CONCLUSION

Coombs reminds us that the Western concepts and models of 'adult education' imply that people are over 21 years of age and have had at least ten full years of schooling. These models 'need drastic redefinition to fit the needs and conditions of developing nations.' [16]

Meantime Dunphy points to a new Western phenomenon, namely, '... that adults are displaying what Klapp describes as a "collective search for identity" ... "there is the odd paradox in the fact that the subculture so ostensibly in revolt against adult mores ... should itself become a source of identity to older generations."' [17] The Western definitions need re-statement not only to clarify conceptualization amongst developing nations, but also to be in accord with reality in the developed nations! Now we are beginning to re-cycle adults and education! Morland speaks seemingly disparagingly of that search for fulfillment when he writes '... hidden in the thrust for "new, exciting, innovative, relevant programmes responsive to the times" is the non-traditional or external degree. It comes in various sizes and shapes, but always possesses the magic ingredient: It enables the graduate student to obtain his doctorate without leaving his job or the comfort of his home.' [18] Morland is justified in expressing his concern over the award of doctorates in this manner: but our main business is not with the award of doctorates, and we do not see anything wrong in someone seeking to retain his job in these uncertain days, nor any value in someone doing penance by travelling in the heat or cold, withering dry or drenching wet to be an internal student. Rather we hark back to the time-honoured principles reiterated by Moore, 'That each scholar can and should pursue knowledge in his own ideosyncratic fashion is a fundamental assumption of the university and one of its most ancient traditions. That students should be permitted to study "extramurally" as they say in Europe, is another tradition, one which has contributed to the growth in America of "university extension".' [19] (I would have written 'derivative tradition' for 'another tradition'.)

Our experience in Australia – and I believe in the rest of the world – is that these principles are being re-affirmed over the whole field of education. Distance educators are no longer the only urgent prophets in the proclamation.

My remaining regret is that, in this paper, I have confined myself to an exposition, albeit sketchily, of a possible distance education institute and I have not substantially exhausted the elusive and inviting dimensions of open education. If my ideal institute is genuinely alert to diversification, it should however be a constant traveller on the open road. Furthermore, I am prepared to tolerate the diseconomics of a few smaller operations to remain on that road.

REFERENCES

(1) Quoted, D. D. Campbell, p. 23
(2) Quoted, E. Walton, p. 151
(3) M. G. Moore, p. 664 f
(4) J. Garner, p. 5
(5) C. O. Houle, p. 119
(6) P. H. Coombs, p. 289
(7) M. G. Moore, p. 676
(8) R. Morris, p. 423
(9) D. W. Livingstone, p. 3
(10) R. Morris, p. 423
(11) K. Rawson-Jones, p. 171 f
(12) p. 24 and p. 60
(13) R. W. Comfort, p. 7
(14) M. A. White, p. 110
(15) Carnegie Commission on Higher Education, p. 19
(16) P. H. Coombs, p. 294
(17) D. C. Dunphy, p. 215
(18) R. B. Morland, p. 163
(19) M. G. Moore, p. 661

BIBLIOGRAPHY

Campbell, D. D.: Taking the Tide at the Flood, Education Canada, Vol. 13, No. 3, Sept. 1973, pp. 23-27.

Carnegie Commission on Higher Education: Less Time, More Options, Hightstown, New Jersey, McGraw-Hill, 1971.

Comfort, R. W.: Higher Adult Education Programming: A Model, Adult Leadership, Vil. 23, No. 1, May 1974, pp. 6-8.

Coombs, P. H.: Should one develop nonformal education?, Prospects, Vol. 3, Autumn 1973, pp. 287-306.

Dunphy, D. C.: Per Group Socialization – Chapter 10 in Socialization in Australia, F. J. Hunt (Ed.), Sydney, Angus & Robertson, 1972.

Gardner, J.: Self-Renewal: The Individual and the Innovative Society, N.Y., Harper and Row, 1963.

Houle, C. O.: The Design of Education, San Francisco, Jossey-Bass, 1972.

Karmel, P. (Chairman): Open Tertiary Education: Draft Report, Canberra, Australian Govt. Publishing Service, 1974.

Livingstone, D. W.: Some General Tactics for Creating Alternative Educational Futures, Interchange, Vol. 4, No. 1, 1973, pp. 1-9.

Moore, M. G.: Towards a Theory of Independent Learning and Teaching, Journal of Higher Education, Vol. XLIV, Dec. 1973, pp. 661-679.

Morland, R. B.: The External Doctorate in Education: Blessing or Blasphemy?, Phi Delta Kappan, Vol. LV, No. 3, Nov. 1973, pp. 163-168.

Morris, R.: Keep the Independent Student Independent, American Libraries, Vol. 4, No. 7, July/Aug. 1973, pp. 421-423.

Rawson-Jones, K.: Some Trends in Distance Education, Educational Broadcasting International, Vol. 6, No. 4, Dec. 1973, pp. 171-174.

Walton, E.: Outlook: No. 3, Walter Perry, Vice-Chancellor, The Open University, Educational Broadcasting International, Vol. 6, No. 3, Sept. 1973, pp. 148-151.

White, M. A.: Report on Correspondence Instruction at the College and University Levels (unpublished manuscript), Brisbane, University of Queensland, 1973, pp. 1-203.

The Role and Organization of an Ideal Distance Education Institute

— in Developing Countries

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The developing countries are faced with the challenge of expanding and equalizing the opportunities of education. The solution of this problem necessitates careful planning and a restructuring of the existing educational systems.

Distance education is considered the answer to this problem, and the author discusses the organization of an Ideal Distance Education Institute in a developing country. The organization that is described, is a very comprehensive and efficient one. It has an Academic Wing and an Administrative Wing, both comprising various sections.

Since distance education means a break from the conventional method of education, the institute should enjoy the status of an autonomous body or a national institute, so that it may have freedom to plan its own courses, draw up its own syllabi, and evolve innovative methodologies of imparting education.

PRESENT POSITION, PROBLEMS AND CHALLENGES

The International Commission on Education (1972) has sounded a note of warning that if educational plans continue to drift as they are today, then by the year 1980, we shall have 230 million children not attending school and 820 million adult illiterates. This is a shocking prospect for the modern society which claims to have achieved remarkable progress in different walks of life. And it poses a big challenge to all of us.

We must remember that education is the bedrock of the economy, social development and scientific progress of a nation. Dr. Edgar Faure, Chairman of the International Commission on Education, has aptly remarked that education is "the keystone of democracy --- not only education that is accessible to all, but education whose aims and methods have been thought out afresh". An ignorant and illiterate nation steeped in superstitions and backwardness can never make any lasting progress. It is bound to fall out of the hectic race going on among nations of the world for survival and advancement.

It is unfortunate that even in this age of enlightenment and awakening, due attention is not being paid to the vital problems of education, particularly in the underdeveloped and even the developing countries. Apart from the problem of an ever-widening gap between the educated elite and the illiterate or semi-educated populace in most of the under-developed and developing countries, there is the danger of a serious gap between the developed and the developing nations of the world. Although the world is spending $200 million annually on education, only a tenth of this sum is spent in developing countries, which is out of all proportion to their size and population. It is time the developed nations of the world and the international bodies realize the dangerous repercussions that such disparities might have on world economy and stability. The advanced nations of the world must, therefore, come to the help of the third world for the eradication of illiteracy and educational backwardness. Although the UNESCO and a number of other international organizations are doing humane service in this direction, there is need for an intensified and concerted effort. The advanced nations of the world should create permanent special funds for stepping up educational schemes in the underdeveloped and developing countries. This would be in line with the first basic assumption on which the International Commission on Education worked, i.e. the existence of an international community with common aspirations, problems, trends and goals in spite of the varied cultures, political set-ups, developed, developing and underdeveloped nations. However, we must also take serious note of the observation of the Commission that "although there are common international problems in education and lines of development on which general agreement is possible, education can nevertheless advance only along paths specific to each individual society and culture".

Assuming that necessary funds will be available through international bodies and by tapping all possible national resources, the underdeveloped and developing nations will have to devise ways and means of making education accessible to all their people. A good deal of thinking has already been done on the educational problems of the developing nations of the world, and it indicates that most of them are faced with the challenge of:

a) eradication of illiteracy;

b) expanding and equalizing educational opportunities;

c) educating the adults;

d) diversification of educational programmes to make education relevant to the needs of society;

e) improving and maintaining quality and standards.

The solution of these problems necessitates careful thought and planning. Mere expansion of conventional education will not meet the foreseeable needs, especially when it has become out of tune with contemporary society. Dr. Prem Kirpal has rightly pointed out in his introduction to "Learning To Be" (the Indian edition of the Report of the International Commission on the Development of Education) that the conservative role of education, of preparing people for stereo-typed functions and stable situations, must be abandoned. In order to make education meaningful and relevant to the needs of society and to remove the gap between the education we impart and the living experience of the students, we must think of innovative alternatives of imparting education, and modernize the course contents.

The Carnegie Commission on Higher Education in the USA also advocates universal equal access to higher education through open door colleges to ensure social justice, and recommends more options, flexibility, diversity, continuous life-long education and a revolution in the use of technology to make instruction more vital. Britain has given a lead in this direction by starting the Open University, which would enable the weaker and the less fortunate sections of society to have access to higher education.

The conditions in developing countries make it all the more necessary for the governments to do serious rethinking with regard to their educational development. These countries will have to bring about a revolutionary transformation and restructuring of their existing educational systems. But while restructuring the system we must remember that an educational system is expected to aid society in meeting its basic needs and demands. It is an integral part of society, and one of its primary functions is to prepare people for the larger society outside the system. We must, therefore, allow considerable flexibility and adjustment in our educational systems. With the explosion of knowledge in all fields of humanities, science and technology, and the general awakening among the people, there is bound to be a constant pressure on our educational systems. The thousands of new learners that we should expect to have every year, are apt to confront us with new ideas, new demands, and even new patterns of behaviour. Mere traditional education is causing frustration among youth in the developing countries, leading to social discontent and political and economic up-heavals. It would, therefore, be necessary to broad-base education by introducing job-oriented courses and inter-disciplinary options. If our educational system does not adapt itself to the new situations, it will not be acceptable to the people.

Another compelling reason for this restructuring is that the prevailing educational system in most of the developing countries was designed to serve a relatively small proportion of the population. Although a large number of new universities, colleges and schools have been opened, most of the developing nations are unable to cope with the influx of ever-increasing numbers of learners. The social demand for education has consistently run ahead of the provision of resources in most of the developing countries. These countries, will, therefore, have to think of some non-traditional system of imparting education, not only for expanding and equalizing educational opportunities, but also for ensuring quality improvement, relevance of education to the needs and aspirations of society and provision of over-all and life-long education for all.

Distance education, I feel, is the answer to this problem, particularly in the developing countries of the world. Apart from the inherent benefits of innovation, flexibility, independent learning etc., this system of education can help these countries in expanding and equalizing educational opportunities without over-taxing their finances. The scheme of distance education would not only help in meeting the ever-increasing demand for formal education at all levels, including adult education and functional literacy, but also provide facilities for continuing education for people engaged in different vocations, in order to keep them up to date in their specialities. It would be a very significant landmark in the educational development of the third world and would go a long way in stepping up national development, because with the tremendous explosion of knowledge in different branches of learning it has become inevitable that every nation must adopt the concept of life-long continuing education of its people. That would bring about the necessary relevance of education to social needs. Imaginative handling of the distance education scheme could help in the improvement of standards also.

I. ORGANIZATION

(See Illustration Chart I)

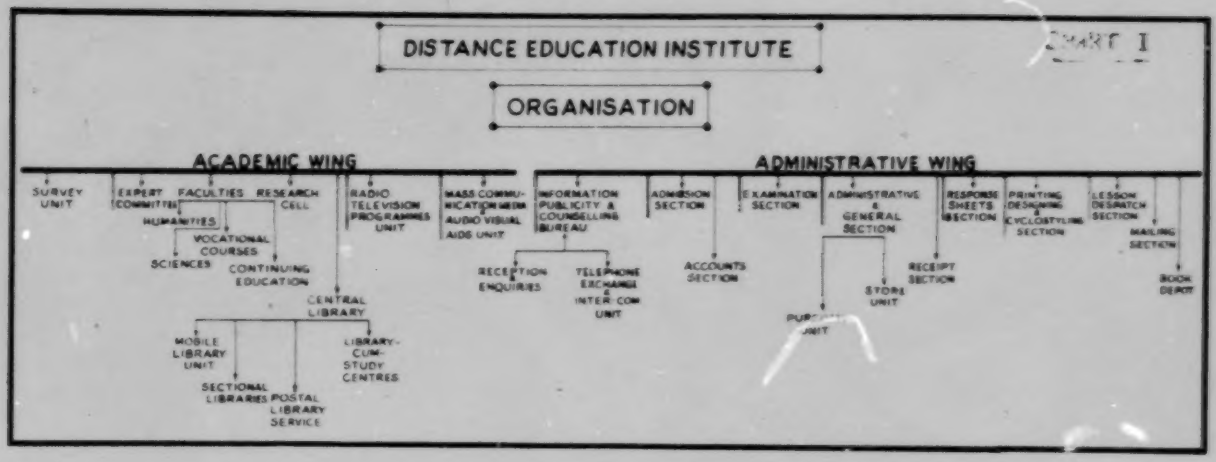
It is with this backdrop of present problems and future needs that I shall try to discuss the organization of an Ideal Distance Education Institute in a developing country.

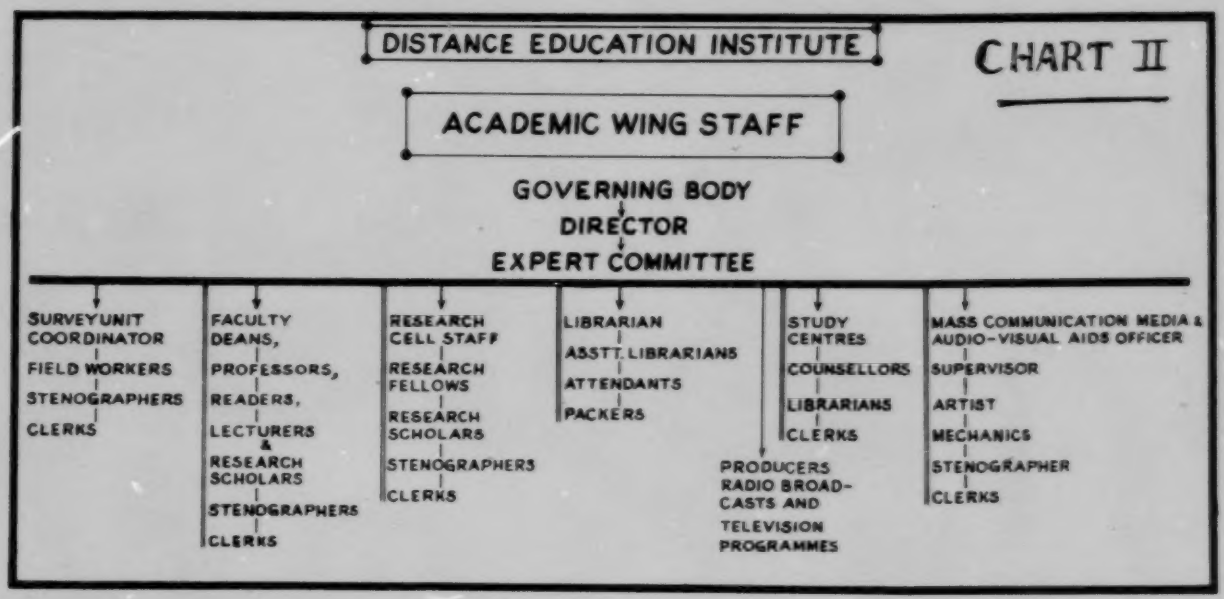
Considering the importance of the multifarious tasks that a distance education institute will be called upon to accomplish, it will have to build up a very comprehensive and efficient organization. It would be necessary to have two distinct wings in the institute – the Academic Wing and the Administrative Wing. Since both the wings will have to work in close collaboration, they should be under the over-all control of the director of the institute, who should be an eminent academician with considerable administrative experience. Each wing should have an elaborate set-up comprising various sections to look after different jobs required to be tackled by it.

II. ACADEMIC WING

(See Illustration Chart II)

Since the institute will be exclusively concerned with educational programmes, the Academic Wing must get precedence over the Administrative Wing.





SURVEY UNIT

While discussing the organization of the Academic Wing, we must remember that the first and the foremost task that an Ideal Distance Education Institute must address itself, should be a comprehensive country-wide survey of the educational needs of the community. For this purpose a full-fledged Survey Unit should be set up with an experienced coordinator and properly trained field workers who should be well acquainted with the socio-economic and cultural changes and the latest developments in different walks of life. These field workers should meet people belonging to different sections of society and get their replies to a well thought-out questionnaire so as to assess the demand for different types of courses that may be able to satisfy the needs of people of various age groups engaged in different vocations. Due importance should be given to the needs and aspirations of the backward sections of society and people in rural areas and far-off places. The Survey Unit should establish close and continuing liaison with industries, business houses, government departments, universities, colleges, schools, social organizations etc. who could give valuable advice, from time to time, with regard to courses that might be useful to their employees and the future recruits. This type of survey and liaison work would enable the distance education institute to keep on formulating new courses that would be relevant to the needs of society and thus help in national development.

EXPERT COMMITTEE

The Survey Unit should submit its reports and findings to an Expert Committee consisting of eminent educationists, scientists, technologists, industrialists and business magnates etc. This committee should carefully consider the pros and cons of various courses in demand, examine the availability of expertise and resources for servicing the courses and formulate clear-cut plans for implementation by the distance education institute.

FACULTIES AND THEIR FUNCTIONS

Once these plans for various types of courses are finalized, they should be submitted to the faculty concerned in the distance education institute for thorough scrutiny so as to define the scope and content of each course. The concerned faculty should also decide how much of the course is to be covered through lessons, how much through the radio/television, and how much through personal contact or face-to-face instruction and practicals. The use of other media may also be suggested for further supplementing the instruction.

Preparation of course material

The next task of the faculty should be to set experts on preparing the course material or lessons. For this the faculty must have competent teachers and research scholars who should be thoroughly conversant with the latest teaching techniques and methodologies, so that they may be in a position to prepare the course material on sound scientific lines. An eminent professor should be in charge of each faculty, and an associate professor should be made in charge of each subject of study.

Special care will have to be exercised in preparing course material. This has rightly been emphasized by Dr. Börje Holmberg in his paper, "Between Evolution and Revolution in Education, Correspondence Study, Lost or Found?". He says that "demands on the preproduced material are set very high since as a rule the learning results have to be acquired by self-tuition. The teacher's instructions must be integrated, the material must be easily accessible and give continuous support of a motivating character at the same time as it must be stringently constructed and leave no areas uncovered. Its structure shall include training in utilizing various sources of knowledge etc". However, the writer of the course material must keep in mind the readability level of the students. As pointed out by Miss Renée Erdos in the UNESCO Source Book, "Teaching by Correspondence", the course material" must guide the students' studies, aid him in the assimilation of knowledge and skill, and test his understanding and attainment to find out where he needs additional help". The course writer must, therefore, indicate the objective and scope of each lesson, split it up into parts under different headings and sub-headings, give a brief summing up at the end, and suggest a comprehensive list of supplementary reading. Each lesson should carry some objective type questions with a key to answers. This would facilitate comprehension of the course material.

Evaluation of students' response sheets

Some exercises for students should also be set in the lessons, and they should be required to submit their responses to their teachers for correction and evaluation. The evaluated response sheets should be returned to the students with detailed comments of the teacher about the students' performance, suggestions for improvement and model answers where necessary. Students who do not send response sheets, or those who are not regular in submitting them, should be issued reminders or follow-up cards. Occasional circular letters should also be sent out by the director, pointing out the importance and usefulness of response sheets. The evaluation of students' responses should count towards some sort of internal assessment. It would be necessary to provide a well organized correction service in order to make a proper assessment of feed-back from the students.

The students could also be put through one or two fullfledged mock examinations, so as to give them practice and confidence in tackling examination questions. Due credit should be given for specific projects which the students may be required to submit. A proper record of students' score in response sheets, mock examinations and projects must be maintained.

Projects, test papers, personal contact and week-end classes

The faculty should plan and prepare projects, test papers, break-down for practical work etc. It should also organize seminars or personal contact programmes to impart the essential face-to-face instruction and to involve students in discussions and exchange of ideas. Some week-end classes too could be provided, to encourage regular study habits among the students. There should also be provision for individual guidance and counselling to students.

Text-books cell

Each faculty should have a special cell for the preparation of graded text-books and supplementary reading material. It should also prepare packages of reference material to encourage independent reading among students.

FACULTIES OF HUMANITIES AND SCIENCES

The formal education or traditional courses could be entrusted to special faculties dealing with humanities and sciences. There should be a Dean of Humanities and a Dean of Sciences to man these faculties. Each faculty should have specialized units for different subjects and each unit should have experienced teachers and research scholars to carry on the academic work.

FACULTIES OF VOCATIONAL COURSES AND CONTINUING EDUCATION

Apart from these faculties, dealing with formal education and traditional courses, there should be special faculties of vocational courses and continuing education to meet the special needs of the developing countries.

The Faculty of Vocational Courses should cater for specialized courses in accordance with the needs of industrial and business concerns, and government departments. It should develop career education programmes aimed at occupational training and career development, e.g. training in small-scale and cottage industries to enable people to set up independent small cottage industries, courses in farming, dairying, sheep-breeding and poultry-farming to step up agricultural production etc. Apart from course material, radio and television programmes etc. there should be provision for intensive practical training and field work also for persons joining these courses. Even after the completion of these courses, the trainees should be kept in touch with the latest research and development in their vocations by constituting farmer's clubs where occasional lectures or discussions could be organized. A vocational newsletter could be of immense value in disseminating vocational knowledge.

The Faculty of Continuing Education should deal with all problems pertaining to literacy, adult education and continuing education of people engaged in different vocations, as also certain hobby courses. This would add a new and very significant dimension to education in the developing countries. It would ensure consistent and stable development of education and go a long way in building a strong base for sound economy in these countries.

RESEARCH CELL

In order to provide sound academic support to the faculties, the distance education institute should have a regular Research Cell which should be constantly engaged in evolving new and innovative methods of imparting instruction. This would justify the development of correspondence courses for truly educational reasons too. This cell should keep itself fully informed of the latest learner trends. It should also provide frequent in-service training to course writers and evaluators, so that they are kept up to date in their jobs.

The Research Cell should make periodic evaluation of the success or failure of the techniques and methodologies recommended by it, in the light of students' feed-back and opinion elicited through questionnaires and personal interviews. We must pay due attention to the learner's urge for autonomy in learning through the methods that he or she likes and not through any super-imposed method. The Research Cell must, therefore, keep in mind the students' psychology, his educational background and age group while evolving teaching methodologies.

Another function of the Research Cell should be to evolve suitable fool-proof methods of evaluation of students' response sheets, projects and examination scripts, so as to ensure careful and objective assessment of the students' performance. It should also evolve remedial measures to help the weaker students.

The Research Cell would do well to advise the faculties in designing course material separately for three streams of students, the above-average, the average and the below-average. Tagging all the three streams together would hamper progress of the learners. The age group of the learners should also be kept in mind while preparing course material.

CENTRAL LIBRARY

To enable the faculties and allied academic teams to do their work efficiently, the distance education institute must have a well-equipped and extensive central library of its own. The library should be well stocked with reference books, journals, text-books, research publications and general books etc. so that the academic experts may have easy access to whatever material they may need for writing course material and for preparing other academic programmes.

Each subject team should also have a small sectional library, so that the books that they may have to refer to frequently are readily available to them.

Apart from catering for the needs of the faculty members, the institute library should provide liberal and prompt library service to its students by developing postal library service and a mobile library unit. The institute library should also keep on feeding the library-cum-study centres. Arrangements should be made in the library for the supply of text-books on full-term loan.

Library-cum-study centres

To further strengthen the academic programmes of distance education, the distance education institute should organize a number of library-cum-study centres at different places, depending upon the concentration of students in different areas. Adequate library and reading room facilities should be provided at these centres. Arrangements should also be made to organize week-end or evening classes as well as proper guidance and counselling service at these centres with the help of local teachers. However, it would be helpful to have one coordinator at each centre to ensure efficient working and prompt service to the students. Occasional seminars, group discussions, and educational film shows should also be arranged for the benefit of students.

PRODUCTION UNIT FOR RADIO AND TELEVISION PROGRAMMES

Establishment of a production unit for radio and television programmes in the institute could provide a very useful support to the instructional programmes of the institute. This unit should be manned by well trained personnel who should be able to produce useful feature programmes, talks, plays and group discussions of academic interest to supplement instruction imparted through printed course material and books. Students' participations in these programmes would make the programmes more interesting. This unit would have to work in close collaboration with governmental or private broadcasting organizations. Wherever possible, exclusive channels for broadcasting educational radio and television programmes should be established.

The institute should send a brief synopsis of the radio talks and television programmes to the students in advance, so that they may have a clear idea of what the talker is going to discuss in a particular radio talk or television programme, and try to recollect various points on the subject. This preparatory work on the part of the students would ensure effective utilization of the programmes.

The distance education institute should also issue a well thought-out questionnaire to students for each talk or programme, in order to test their reactions. This would provide an incentive to students to listen to the broadcasts regularly.

The coordinators or counsellors appointed by the institute at different contact centres should, apart from providing regular class instruction and individual counselling, discuss various points put across in the radio talks or television programmes, either the same day the talk has been broadcast, or the next day. The counsellor should answer whatever queries the students may have on the subject. These meetings should be arranged in the evening so that the students are able to attend. This sort of follow up work will enhance the utility and effectiveness of the radio talks and television programmes.

MASS COMMUNICATION MEDIA AND AUDIO-VISUAL AIDS UNIT

In this age of advanced and sophisticated mass communication media, it is necessary that the distance education institute should set up a Mass Communication Media and Audio-Visual Aids Unit, to explore the possibility of using all possible audio-visual aids to make distance education an interesting method of imparting education. Whereas the lessons and the books appeal solely to the reading faculty of the students, the audio-visual media stimulate the other senses too. Moreover, they provide higher motivation than the traditional methods of instruction and make the learning process more interesting and pleasant. Since most of the developing countries may not as yet have a well-developed net-work of radio and television channels, they could easily rely on cheaper audio-visual aids like tape-recorders, record players, slides, film strips, documentaries and educational films. These media could be especially helpful in executing programmes of adult education, universal literacy and continuing education.

III. ADMINISTRATIVE WING

(See Illustration Chart III)

For the successful functioning of the distance education institute, careful attention will have to be paid also to the organization of a strong Administration Wing. Efficiency, promptness and systematic working should be the hall mark of this wing. Things must move

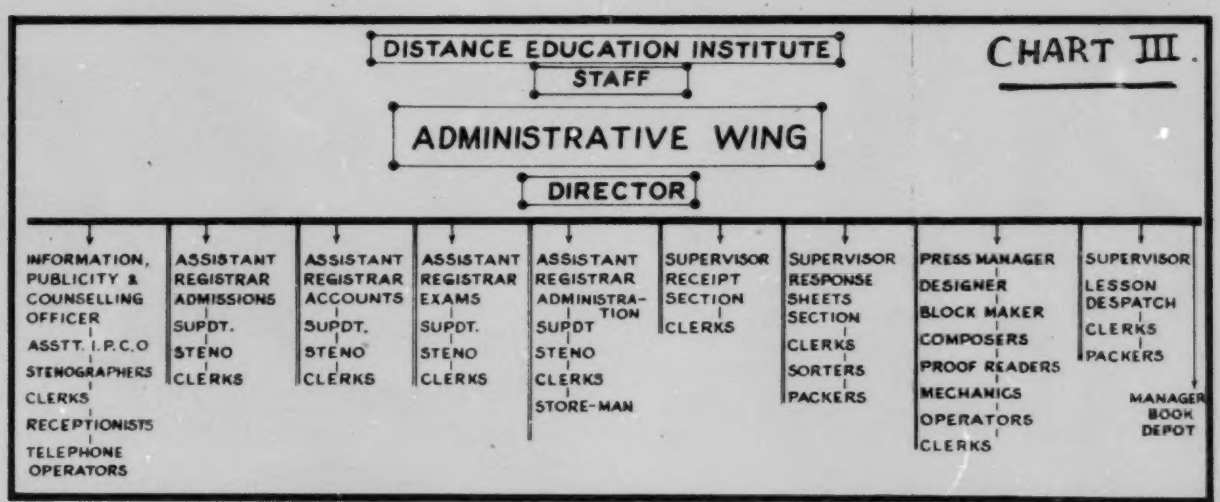


CHART III.

according to schedule to ensure that students get their course material regularly on the stipulated dates, receive prompt replies to their letters, queries etc. and get back their corrected response sheets within a reasonable time limit. There are numerous other functions which the Administrative Wing will have to perform. It will, therefore, be necessary to organize different sections or branches within this wing, with clear-cut demarcation of their duties. Although no rigid or fool-proof plan can be suggested, the following blue print may serve as a general guideline.

The director of the institute should be over-all in charge of both the Academic and the Administrative Wing, and the policy decisions and directives should be issued by him. However, he must have a good team of capable administrative officers to assist him in carrying out the office work.

Information, Publicity and Counselling Bureau

The first and foremost prerequisite of the distance education institute is a good Information Publicity och Counselling Bureau which should be able to supply the essential information about the courses, admission requirements, course fees and other charges; ensure good publicity and provide counselling to students regarding choice of courses and subjects of study etc.

This unit should be under the charge of an information and counselling officer with a stenographer and two or three clerks, depending upon the load of work. A reception desk should also function under this unit for attending to visitors, students and personal queries. The unit should bring out brochures of information, prospectus, newsletters and pamphlets listing advantages of the distance education method and the various courses. The newsletters should give due publicity to the various activities and programmes of the institution and the students' achievements and reactions etc.

Telephone Exchange and Inter-Com. Unit

The institute must also have a Telephone Exchange and Inter-Com. Unit. This could be placed under the charge of an information and counselling officer.

Coming to the office work pertaining to students, it would be advisable to have separate sections to look after specified jobs. Each section should be under the charge of an assistant registrar who should be assisted by a superintendent, stenographer and a few clerks, depending upon the load of work. These sections should be:

Admission Section

The Admission Section should deal with eligibility and admission of students to different courses, issue of roll numbers, maintaining of students' files, despatch of lessons, receipt and return of students response sheets, record of the marks/grades secured by the students and replies to students' queries about all these matters.

Accounts Section

The Accounts Section should maintain students' fee accounts, issue fee receipts and reminders where necessary, intimate names of fee defaulters to admission section for stopping lessons, prepare budget, make payments of bills and salaries to staff and maintain account registers under different budget heads.

Examination Section

The institute should have an Examination Section to deal with all work connected with examinations. This section should send out examination forms to all eligible students, receive the completed forms and examination fee, credit the examination fee to the Accounts Section, scrutinise the examination forms, have discrepancies etc. rectified, issue examination roll Nos., date sheets and instructions for candidates, and arrange conduct of examination at different centres in case the institute itself is the examining body. If the examinations are conducted by the university or board to which the institute is affiliated, then the issue of roll numbers, arrangements of examination centres and conduct of examination will be looked after by the university, and the institute's Examination Section will act as a coordinating agency. It will also be responsible for communicating results to the students, maintaining record of results, issue or despatch of certificates/degrees and advising failed candidates how and when they could take the examination again.

Administrative and General Section

The Administrative and General Section will deal with all work pertaining to staff, establishment, maintenance of building, furniture, equipment, rules and regulations, preparation of prospectus, admission forms and statistics etc. This section should also look after purchases and stores.

Besides these major administrative sections, the institute should have a number of smaller units to look after different jobs or more or less mechanical nature, such as:

Receipt Section

The Receipt Section should deal with all incoming mail and marking it to different sections. It should enter all letters, parcels, students' response sheets etc. in a receipt register which should bear date of receipt and indicate distribution of mail to different sections. This section could be put under the charge of a supervisor.

Response Sheets Section

The Response Sheets Section should receive students' response sheets from the Receipt Section, sort them out course-wise and subject-wise, distribute them to the academic staff or external evaluators, receive them after they have been corrected, pack

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them in envelopes and pass the envelopes on to the Mailing Section for despatch to the students. This section should be manned by a supervisor, one or two clerks, two sorters and two packers as the work-load may demand.

Printing, Designing and Cyclostyling Section

One of the very important sections of the institute should be the Printing, Designing and Cyclostyling Section. It should be administered by a press manager who should have the assistance of a designer, a block-maker, a compositor, proof readers, operators and mechanics. This section will be responsible for the printing of the entire material required by different branches/sections of the institute. It should have good printing machines with adequate capacity to deal with the load of work of the institute.

Lesson Despatch Section

Another important section should be the Lesson Despatch Section, which may be entrusted with the responsibility of packing lessons/course material strictly according to the despatch schedule. These packets should be passed on to the Mailing Section, after the students' addresses having been affixed.

The institute should put an experienced supervisor in charge of this section, who should have a few clerks and packers to assist him in packing and maintaining record of despatch of course material to students. This section must keep close liaison with the Admission Section to ensure that the supply of lessons is stopped to the fee defaulters and drop-outs. The section must have satisfactory packing material and the latest machines to ensure good packing.

Mailing Section

The Mailing Section should deal with the mailing of letters, information brochures, admission forms, prospectus, newsletters, lesson packets, response sheets, books, examination forms, date sheets, roll numbers, certificates/degrees etc. etc. This section should be very prompt in clearing all the mail from day-to-day. Franking machines could add to efficiency in mailing. This section should be under the charge of a superintendent, who should have a sufficient number of assistants to help him in clearing the mail from day-to-day.

Book depot

And last of all, the institute should have a good book depot for the sale and supply of books, journals etc. to students, so that the students may not have any difficulty in procuring prescribed books and supplementary reading material. The book depot could be run by a sales manager who may have one accounts clerk and a couple of packers.

SUMMING UP

This organizational plan for an Ideal Distance Education Institute has been suggested so as to meet the basic needs of such an institute. However, there should always be room for flexibility, innovation and improvement in the organization in order to cope with growing demands. The most important thing that we must always bear in mind is the vital role that a distance education institute will be required to play in the implementation of educational plans of developing countries. Since distance education means a break from the conventional method of education, the institute should enjoy the status of an autonomous body or a national institute, so that it may have freedom to plan its own courses, draw up its own syllabi and evolve innovative methodologies of imparting education.

The governments in the developing countries must ensure adequate financial support for the proper development and functioning of the distance education institutes, for the programmes of these institutes would yield rich dividends in terms of properly educated citizens, lend a real functional value to education and help in linking up the educational system with the over-all national development.

Since the distance education scheme can be an economically viable scheme as compared to the orthodox schemes of imparting education, it would help the governments in the developing countries to carry out their educational development plans in spite of the financial squeeze and shrinking budgets. The developing nations should, therefore, give top priority to the organization of distance education institutes to ensure their educational, cultural, social and economic development.

I do not claim that the plan suggested by me is the ideal plan, but I am sure that collective thinking of eminent educationists and seasoned scholars can thrash out a perfect plan for setting up an Ideal Distance Education Institute in the developing countries. That would be a memorable contribution towards the spread and development of education in the developing countries which, in due course of time, would bring the peoples of the world closer, and ensure better understanding, mutual respect, lasting peace and enrichment of human mind.

Carte Blanche for Distance Education

Mr. Conrad Wiedhaup

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President of the European Home Study Council

The author refuses to use the carte blanche, i.e. the castles in the air, the Utopia, as a starting point for his reflexions. Instead, he describes some of the dirty stains on the card of reality, e.g. the unfair competition between institutes and broadcasting institutions, the isolation of students, the lack of adult education specialists.

Further, he describes some experiences from an international expert team reporting on the use of educational mass media in Thailand. Starting with the optimistic idea of having a "carte blanche", the team soon learnt that the carte was not blanche at all. The paper ends with the statement that the realistic problem is how to make the dirty cart less dirty.

There are different ways of planning the future. One may study the present, try to recognize some remarkable and relevant points and draw lines to the plans to come. When we choose this method, we are realistic, we confront our plans with reality, we do not walk with our heads in the clouds. But we drag all the frustrations of our failures with us.

The other way is: let's forget the present, plan beyond the horizon erecting perhaps castles in the air, travelling to Utopia, not calculating risks but expecting miracles. In order to be realistic, you have to accept miracles as Ben Gurion once said.

When we study the history of education, we discover that until the beginning of this century the second way was the way of the great educationalists. "Look at the mess they made of our world", say their opponents. "Without their Utopias there would not have been any evolution or development at all" is the answer of their supporters.

Forgive me this rather philosophical reflexions. But I had to think them over trying to understand what the Programme Committee Chairman meant, by asking me to speak on "Carte Blanche to Organize the Ideal Distance Education Institute". Take a shining white piece of paper, a carte blanche, take a pencil and draw the institute for distance education you want. It sounds very promising, challenging, but at the moment you start you feel empty. You feel exactly the same as the architects of the new part of the Netherlands where I live. Land reclaimed from the sea, empty without a tree or a hill for many, many miles. And in the middle of nowhere the architects told me they were as desperate as I was. They were sent to England to study the building of different new towns but they came back and said that their instructional tour had been very, very pleasant indeed, but not of much use. Their English colleagues had at least a hill or some trees or a small river or a rock to start with and they had . . . yes . . . "carte blanche". Which shows that the white card need not be the best card.

Let's turn to the other starting point. Let us study the thumbed colourful card of reality. Let us try to eliminate the elements that frustrate us in planning an ideal distance education. The European Home Study Council organized a workshop in England near Reading in the autumn (fall if you wish) of last year. The theme was the presentation of home study to the society at large, to the school system, to the student. The conclusions were that the main dirty stains on the carte blanche are

a the unfair competition between mostly private home study institutes and other forms of education being part of the system, the educational establishment. The latter being fully subsidized, the former as a rule struggling for its financial life;

b the unfair competition between especially correspondence education and the state controlled or state owned modern mass media like television with its enormous propaganda impact.

Carte blanche? Please remove these inequalities first. Not only to make life easier for us all, but to fulfil the conditions under which a true multi media approach, based on systems analysis may be realized. Stop allowing Big Brother Broadcast only other media to fill up the gaps.

Trying to clean the card we see many other stains, not caused by the government of the mass media, but inherent to many systems of distance education. I choose only a few of them

c the isolation syndrome, inflicting the motivation, which characterizes many home students studying by distance education; carte blanche means here: give better conditions, more help, more manpower, more money to form groups;

d the over-commercialism of some schools and institutes which may have been forgivable in the past, but which have to come under strict control of society (I do not say "state") including quality control by modern evaluation techniques;

e the lack of training for educationalists and teachers in distance teaching to adults as their specialization; in my opinoin the first step to every form of "education permanente";

f the difficulties of two-way communication with regard to the time between answer and response, written home work and comment;

g the lack of scientific research and knowledge with regard to the most effective evaluation, media integration etc. I am very glad to say that recently the research by well equipped institutes and apt scientists have started in different countries;

h i j . . . z. look how the growing literature on distance education and the discussion even in parliaments show how the carte blanche, the white card could be completed to a colourful picture. A very good scheme of possibilities you will find in the "Short Handbook on Distance Education", published in the end of last year by our Conference president, dr Börje Holmberg, the subtitle of which could have been "short manual for filling up cartes blanches".

One of the main goals of education permanente is learning to reflect on one's own limitations. In doing so after lifelong learning I must acknowledge that some, or perhaps many of the remarks I have made, only refer to the West European systems of distance education. Not to Eastern Europe, where the governments are often organizing this educational branch themselves, not to the United States, where extension departments of universities have accepted distance education as normal and efficient, only partly in Great Britain with the example of the Open University, but definetely not to many developing countries. And in my opinion as educationalists we all have to focus our attention to the huge possibilities of our discipline in these countries.

Last year I had the opportunity to study educational problems of that kind during some months in one of the more developed developing countries. On request of UNESCO I joined an international study team on the use of educational mass media in Thailand. The team wrote a report of five volumes for the Thai government on the integration of radio, evening schools, mobile units, science kits and . . . correspondence education. For mere technical reasons TV could only be of help in urban areas, which only have 20 % of the population, mostly concentrated in Greater Bangkok. The system which was developed for the greater part aimed at "second chance education", bridging the gap between three or four years of elementary education (ending at the age of ten) and general education necessary for the staff in a more developed country (starting at the age of fourteen or fifteen, much literacy in the meantime having been lost). Without stimulating a population flow from the rural areas to the white collar jobs or the white collar unemployment of Bangkok, where nearly 4 million people live.

Our study team helping to prepare an application of the Thai government for many many million dollars to the World Bank, started with the optimistic idea of having a "carte blanche". Many of the stains and dots on the card of the western world did not exist here around the Chao Praya River. There was not only a positive approach to distant education by the government, but even enthusiasm in the educational establishment, there was financial equality, there were highly motivated students (one of my most striking experiences), there was pooled international know how etc. etc.

In fact everything looked like a carte blanche. In a very good cooperation, I daresay a very friendly cooperation with the Thai Ministry of Education (where I had my office) and many other ministries involved, we started our research but very soon a well known line from a Dutch poem came into my mind. In translation something like "The way from dream to reality is often blocked up by laws and practical difficulties". Let me mention some of them:

a how to train in a short time staff and teachers for a correspondence institute with let us say 25.000 students in five years (a plan for instructing instructors was worked out);

b how to compose written assignments in a language with tonal inflexion. In other words, where the same written word, not spoken, can have different meanings. In which the word "khao" means they, bad, rice, white, old or news;

c how to deal with large linguistic minorities, a very precarious problem in a political sense. I think of the Chinese in the north and Bangkok and the Malayan people in the south;

d how to make use of the many well educated Buddhist monks for groupwork, without the stress on religious education they are inclined to lay on;

e how to get the written material and the home work from the institute and vice versa in the many remote areas within two or three weeks? The postal service does not yet reach many villages of the country (collecting by monks?);

f how to maintain and promote the Thai culture, integrated in a system of modern distance education as well as in a very crumbled school system run by the government and not seldom wrapped up in red tape with a system of examinations (after every school year) reminding of the pre-Mao-Chinese system?

I hope that I made it clear that the carte blanche we hoped to find in Thailand was not blanche at all. Not more than the card we find in the so called "developed countries" or even the "rich countries". We could only say both cards showed many comparable dots, some stains and dots were specific for one of the levels of development.

Nevertheless our whole team were convinced that the development of the Thai society, and I refer especially to the infrastructure of the Thai-shaped-democracy and the economic foundation, can and must have the help of a system of distance education in which correspondence education must play an important part. It was from this conviction that every member of the team worked very

hard from morning till night in humid and hot Bangkok. For the benefit of the educational system we believe in; but first of all for the benefit of the many Thai friends we soon had.

I made the comparison that talking about cartes blanches is often building castles in the air. Chateaux en Espagne. I am sorry if I disappointed you by not building such castles but talking more about demolishing old buildings. In other words: it is a realistic problem how to make the carte sale: moins sale. The dirty card less dirty. How to remove some historical fingerprints from our card.

Distance Education – its Didactics and the Preparation of its Teachers

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The characteristic features of distance education are considered from several points of view, the main theme being that of the preparation of teachers.

The teacher's job is to bring about learning by the students, and he/she can do this only if he/she is master of a wide range of knowledge and skills, and has the talent to develop rapport with the individual students. An examination of the sources of teachers for distance education shows a need for courses of training to orient to distance education those teachers who are already qualified in other areas, and more extensive courses for vocational and other specialists who are almost totally untrained to teach; there is also the problem of the in-service training for existing staff.

The course, set out in some detail in the paper, applies primarily on the expert who wishes to become a teacher, but it is adaptable for persons with teaching qualifications in other areas. The structure of the course is flexible, intended for external studies with compulsory attendance segments, and equivalent to one year of fulltime study. The course covers four integrated areas, consisting predominantly of: learning about teaching, practising teaching, specialization in educational development, and an internship.

INTRODUCTION

During many years of involvement, for considerable periods, with correspondence and associated forms of education in virtually all aspects, it has become apparent to me that there is a need for more consideration to be given to the selection and preparation of the staff for this work. However, I do not know of any course specifically designed to prepare persons for this responsibility, although I know several books which give sound advice for teachers in this area.

One of these books, prepared by Rene Erdos of the Technical Correspondence in Sydney, Australia (now the College of External Studies), is the UNESCO Source Book entitled Teaching by Correspondence.[1] It contains much valuable information and direction and can be regarded as a survey and guide to teaching by correspondence. However, it does not deal with the selection and training of staff.

The second book, by Börje Holmberg, entitled Distance Education has very recently been published by Hermods in Sweden[2]. This seems more specific and more perceptive in comments on practical operations. This book, too, is a guide or reference book and gives emphasis to correspondence education but refers to various media and the principles to be applied in their selection for use.

In general terms, each of these books examines much of the didactics of distance education, but without consideration of the desirable training for the teaching staff.

It is presumed that most distance educators are in agreement with the premise that, just as teachers are trained for classroom operation in their teaching areas, teachers required to teach by distance education should receive equivalent training, and that it will be somewhat different from the training for classroom work[3].

In fact, in view of the general community concept that students unable to attend class instruction are at a disadvantage, there is justification in a democratic society for special arrangements to compensate for this; for instance, by special attention to the selection and training of the teachers! (I want to make it clear, here, that I am not saying that, necessarily, the distance education or external students are at a great disadvantage. It is a complex situation.)[4]

This, then, brings me to the purpose of this paper – a short examination of didactics applicable to distance education, followed by some comments and suggestions as to the training of teachers to work in distance education.

I see the task of preparing teachers adequately for this work as being of increasing importance.[5] This is because of the trend towards more extensive demands for education[6], particularly vocational[7] and other adult education[8]. Distance education is so much involved in educating adults that factors relating to adult education can generally be applied to distance education.[9]

Perhaps it would be as well to say that the education task is not only increasing, but also increasing in complexity – both in what has to be taught[10] and in the technology available to help teachers in their tasks[11]. Technology is especially relevant and important in distance education.

DIDACTICS

The dictionary indicates that "didactics" are the methods used in teaching and the manner in which these are employed. I or our purpose, this is too narrow. We are not concerned only for formulae (I hope), but see in teaching the application of a wide range of knowledge and skills relating to individuals and society. Also, we accept the need to consider the restraints, too.

The range of knowledge and skills required is extensive.[12,13] It includes the philosophies which direct, select, and govern our objectives. It includes psychology, which enables teachers to deal with their students with understanding, to assess their personal qualities, to set up learning situations and motivate the students to learn from them, to change attitudes of students, and to discover and encourage students to follow individual interests. It also includes sociology, seeing the individual students as part of social structures – peer groups, family, associations, and the total community.[14]

A teacher, to be truly effective, needs to get to know and understand the various environments of the individual students – family[15], culture, work, and industrial relations, to name a few important ones. It is also important that he comes to understand his own environments and their effects on him. (I ask for the indulgence of my female colleagues for using 'he' as including 'she', and similar short-cuts. I mean no disrespect. Indeed, I would alternate if this would not lead to confusion!) In particular, he has to develop the ability to operate within the organizational structure of which he is part.

From all of this, it will be appreciated that I do not think teaching can be regarded as the simple application of rules and methods. Rather, I see it as a relationship similar to that of a doctor and a patient. Each patient is regarded as requiring individual treatment, based on the results of the doctor's skill in diagnosis. For this, the doctor calls on his wide knowledge and experience of the likely patterns of response to the courses of treatment which suggest themselves to him. A teacher, in my view, must have comparable knowledge, skills, and experience; also he should treat the individual so far as this is possible for him to do.

In the past, distance education has been very much restricted in the methods of teaching open to it – but perhaps not as much as has generally been thought.[16]

Now, modern technology marshalled in the interest of education, has opened up new methods and brought about more tangible contact between teacher and pupil. More and more, there seems to be a moving together of the methods of distance education and of attendance education, brought about by the employment of technological aids in education.

Perhaps it would be appropriate here to point out that, long ago, correspondence education perforce concentrated on many aspects of teaching/learning which are becoming highly regarded in attendance education. Examples are: the individual instruction of students, self-paced learning, and the development of powers of self-directed learning.

The didactics of distance education cannot be studied here in operational detail (and need not be, for they have been covered in other books). However, there are aspects not usually covered which are important enough to be dealt with under separate headings. These are: the student's view, the organizational constraints, the teacher's view, the implications of technologies applied to education, and combination courses.

THE STUDENT'S VIEW OF HIS LEARNING SITUATION

It is not necessary to look at this at length, but the student's attitudes, objectives, motivation, environment, previous experience, prior knowledge, and learning potential are all important in the task of causing him to learn.

The student may see the course he is taking as desirable (because it promises to satisfy some of his objectives), so he is motivated to trying to learn. However, he will be influenced by attitudes towards education generally, or towards his teacher, or towards a subject, which negate or support that motivation. Other factors also operate, such as despair because of lessons which he finds too hard, anger at harsh or what he considers unjust comments, disappointment at poor lesson presentation, and frustration at delays in the return of assignments.

It is important to note that there are some students who are taking the class "under duress" by parents or employers. These students are liable to have a jaundiced view of the proceedings initially. It is the task of the teacher to change that attitude.

Distance education may be found by some students to be the solution to their problem of never being able to keep up with other members of a class or, conversely, of being frustrated by being held back to the rate of the slower learners. Their view is favourable towards the system.

On the contrary, there are students who thrive educationally only in a social setting, with its group support and interpersonal competition. They will tend to have an unfavourable view towards the system.

Looking at the general situation, we can see that there are some features in distance education which are inevitably viewed as unsatisfactory by the students. The first is the delay in feedback on their performances[17], due to transit time of assignments to the teacher and back, and to any delays in "correction". The second is the inherent frustration at not being able to get advice or answers to questions immediately (at the time when, psychologically, the student is in the best condition to learn quickly). The third is a variable factor, depending on the appropriateness of the written word, or the words as written, as a communication device for that particular student.

Finally, mature students frequently see in the distance education system economies in the utilization of time (because of avoidance of travelling to and from class) and convenience in allocating the time for study, which compensate satisfactorily for the disadvantages of the system.

The didactics applied in distance education and the organizational arrangements must take cognizance of the disadvantages to minimize them, and of the advantages to capitalize on these.

One aspect arising out of this discussion, and which is frequently overlooked, is the need properly to orient students to an unfamiliar way of "being taught".[18]

ORGANIZATIONAL CONSTRAINTS

Distance education owes its existence to the economic and social impracticability of providing opportunities for attendance education for all those who are required or who wish to learn.[19] Whereas "required learning" is generally quite restricted in range, "desired learning" covers an enormous range of subjects and levels.[20] On the one hand, we have the community philosophy that each person should be assisted to expand his personal potential to its limits, and on the other, we have the cost/benefit equation to satisfy, because the community's financial resources have to be budgeted and shared with other services.[21]

It has been shown that distance education produces learning (as measured by examination results) at least equal to that produced by attendance education.[22] There are also figures available to show that correspondence education at primary and secondary school levels is less expensive in recurrent costs than class-room education.

The first matter – one with important educational implications, in spite of the comments a little earlier – is that standard lesson instructions, materials, tests, assignments (henceforth all referred to as "lesson notes") for each course[23] are sent to each student in that course. These, then, should be very carefully and skilfully prepared, tested, and revised before general use. What is also important is that the time and money and skill invested in those notes should not cause them to be continued in use without revision long after it is known or suspected that revision is advisable.

The second matter is that of the teachers who operate in distance education. They need to believe in this type of education and to be selected on the bases that their abilities and personalities will make them fully effective in this work.[24] There are three associated aspects, the last of which will later be discussed in detail. They are: the suitable accommodation for the teachers working in this area; the supervision and on-the-job guidance the teachers are given; and the specific training of staff for this work.

It is not proposed that we should look at the mechanics of the in-flow, recording, controlling, and out-flow of lesson notes and students' work, though some aspects have impact on lesson construction and on the effectiveness of the whole system.

With the saving in capital costs in school buildings and amenities, and the servicing costs on these as well as the saving in running costs, it is surprising there has not been a stronger swing towards distance education.

It is now intended to direct your attention to other organizational matters very briefly; some of these matters will be examined in more detail under another heading.

THE TEACHER'S VIEW OF DISTANCE EDUCATION

For convenience, an examination of the traditional tasks of teachers is presented in tabular form, comparing the work of a class-room teacher and a teacher in correspondence education in the same area of education, e.g., in the subject of geography in secondary education, or of geodesy in vocational education.

Classroom Teacher	Correspondence School Teacher
1. Recognition of the objectives of the course and the philosophies on which they are based.	Same
2. Familiarity with the subject-matter and its supporting data.	Same
3. Arrangement of the course content and the selection of material from it appropriate to the background knowledge of the students.	Pre-determined by the writer of the correspondence course and assumes a standard background of knowledge/skill in all students.

Classroom Teacher	Correspondence School Teacher
4. Selection of an extent of material for the time available as appropriate to the specific group of students.	Extent of material presented is pre-determined, but the study-time is flexible.
5. Determination of the precise objectives of the lesson and how the degree of success of the lesson will be measured.	Pre-determined, as above, but the full range of objectives as seen by the writer may not be recognized by the teacher.
6. Determination of the extent and methods of revision of previous work, and of arousing motivation.	Pre-determined, as above.
7. Planning the steps in the presentation of the lesson.	Pre-determined, as above.
8. Planning the method to be used for each step.	Pre-determined, but the methods available to be used are restricted by organizational and physical factors.
9. Planning consolidation practice, tests of understanding, etc.	Pre-determined, as above.
10. Planning the method of conclusion, including linkage with future lessons, assignments for consolidating learning, and references for further explanation and information.	Pre-determined, as above.
11. Arrangement of the physical environment to provide a satisfactory background to the development of the planned learning situation.	The teacher has no control over the student's environment, other than that provided by the lesson notes, though guidance to the student about a suitable environment should be given.
12. Establishment of rapport with the members of the class.	The teacher is remote and must rely mainly on written communication. Rapport is developed, if at all, only after a considerable interchange of communication.
13. Building up a "positive set" towards the lesson to be presented.	Development of a set to a lesson is difficult and is largely in the hands of the course writer. Though a few sentences to individual students, sent with the lesson notes, can help, the mechanics of the system do not encourage this.
14. Presentation of the lesson in accordance, as far as seems at that time desirable, with the lesson as planned, but making adjustments to the plan to suit the immediate situation.	The lesson plan is pre-determined and no ad hoc changes are possible, as the teacher is not present when the lesson notes are being studied.
15. Within the lesson, the involvement of the students in the processes of developing the topic, educing the requisite information from the students as much as possible.	Planned in advance, and regardless of the individuality of the students. No social interchange of ideas is possible.
16. Identification and elimination of misunderstandings or lack of comprehension by individual students.	Misunderstandings and lack of comprehension can only be discovered, and attempts made to remedy them, long after the lesson has been studied, and frequently after other lessons have been attempted.
17. Stimulation of individuals to continue effort towards mastery of the presentation.	Immediate individual stimulation by the teacher is impossible.
18. Control of factors interfering with the desired learning situation, either by students or externally caused.	The teacher has no control over the student's study environment.
19. Application of tests to discover the degree of success of the lesson to note inadequacies to be remedied.	Pre-determined by the course-writer.
20. Provision of feedback to individual students about their successes and weaknesses as soon as possible after any tests.	Feedback to the student is delayed, frequently for weeks.
21. Recording of the successes and weaknesses of the teaching strategies used, for the future guidance of the teacher.	Same; but major changes in lesson notes are only possible when the course is re-written.
22. Recording of the results of, and comments about, individual students, for future action to help them and to build up a more complete "picture" of their abilities, interests, and personalities.	Same

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It will be recognized from this comparison that the correspondence student and teacher have many disadvantages compared with their class-room counterparts. In particular, the correspondence education teacher does not have control over many factors which the class-room teacher is expected to control to obtain optimum progress of his pupils.

The correspondence teacher is working in association with the writer of the lesson notes, who has pre-determined many of the vital factors in the educational situation. The writer dominates the situation and the teacher can get the feeling of being "just a tutor" following up the work of a more experienced educator. This relieves the teacher of a great deal of work, but also may be a great frustration to a dedicated teacher. This occurs when the lesson notes do not conform with the teacher's ideas as to how the course should be organized, and how particular segments should be presented to specific students.

With the widening concept of distance education[25], the teacher's task is complicated by the variety of media in use[26]. However, it is also improved, educationally, because of the new and increasing potential he has to provide stimuli to learning to suit a wider range of individual differences in students.

Undoubtedly, the distance education teacher's view of his position in education, of his ability to promote educational objectives, and of the potential for job satisfaction generally, is improving. It is likely to be further enhanced by continuing developments in education, particularly "technical and further education".

IMPLICATION OF NEW TECHNOLOGIES

(For simplicity, "New Technologies" has been taken to mean any form of presentation of lesson material not graphic and not capable of being incorporated by normal printing methods in lesson notes.)

Here we can only discuss the broad impact of new technologies on distance education. In fact, in most cases their potential has not yet been fully assessed. What is of paramount importance is the potential these technologies have to overcome problems of communication between teacher and pupil.

Part of this power is in the inherent attractiveness of visual material and the spoken word over printed or written material. Added to that is the ability – by cine film, video tape, and TV – to present sequential events in a continuous life-like sequence (and at any desired speed). Of course, there are other advantages, not the least of which is that education is thereby using devices and systems of communication to which the student is already conditioned.

By the use of these new technologies, distance education can be greatly enhanced. This is especially so in a wide range of subjects which could be taught only to a limited extent by correspondence courses. This is particularly true in many vocational and activity areas, such as engineering, trades, arts and crafts, sports, drama, TV production, to name only a few.

What is most significant is that the role of the distance educator is dramatically changed from dependence on the written word and a few diagrams to the control of the inflow to the student of a wide range of sensations and sequences of related sensations. However, his role in guidance and treating with the learning problems of individual students remains as it was – but he has a wider range of ways of carrying out that role.

The new technologies are having their impact on class-room teaching, too, but their potential to overcome difficulties in distance education make them relatively more valuable in the latter. There are more technological aids to teaching which have little relevance to distance education, but considerable potential for attending students.

The point that must be made is that the distance educator must learn to use those technologies which are relevant in distance education more quickly, more efficiently, and in a different way from the class-room teacher.

It is also important to note that there is now almost universal access to tape recorders in many countries, so that interchange of verbal communication between student and teacher is easy, although not immediate. The use of the telephone for student/teacher conversation is standard practice in some places.[27] Even two-way radio is used, as in Schools of the Air[28], which are a feature of remote country areas of Australia.

It is already possible to have exchange of video-tapes between teachers and students, though not many pupils yet have access to the necessary facilities. No doubt study centres will be organized with these and other facilities before long.

COMBINATION COURSES

The great psychological disadvantage which affects distance education has always been that the teacher and the student frequently have no contact outside the exchange of written notes.[29] As has just been mentioned, several different efforts have been made to reduce this disadvantage.

One important strategy has been employed quite widely, especially in the education of adults. This is the conducting of conferences, seminars, week-end schools, summer schools, holiday workshops, and the like. These give some teacher/student contact to those who attend. It has been found that the inter-student contact also is very beneficial. Some institutions make attendance a condition of their acceptance of students for external courses.

The institution of some segment of student attendance in distance-education courses, which thereby become combination courses, has expanded the range of courses which can be handled by distance and external education. Courses requiring some pupil interaction, group activities, practical work with specialized equipment, or personal direction and testing by the teacher-expert, become possible.

I believe it is fair to say that there is almost no subject which cannot be presented under combination-course conditions and using the array of methods available to educators.

Further still, I believe that much of the education of adults which is now done under personal-attendance class-room teaching conditions can and should be done as external-studies courses.[30] The only difference between this and distance education, as we usually think of it, would be the possibility of pupil/teacher contact when desired by the pupil, and the possibility of distributing personal attendance for practical and other work more evenly or more satisfactorily throughout the course.

By such a variation in the structure of courses, the students would have the advantages of self-paced learning, greater independence of study arrangements, better use of his time, training in self-reliance, and development towards self-directed learning.[31] The teachers would be able to give their time to helping those who need help most, and would not be worried with problems of discipline. The system would be, I believe, both more economical and more effective in achieving its goals.

One important condition would be that teachers be oriented towards and trained in the effective operation of this method of education.[32,33]

Consideration of what this training should be must now follow.

ROLES IN DISTANCE EDUCATION

There are three main facets of educational work in distance education, as Miss Erdos has pointed out – teaching, course-writing, and supervising. It is a team operation. There will be many more teachers than supervisors or course-writers.

A person who is a teacher or tutor is expected to encourage, correct, stimulate, and guide[34] the students in his charge so that they learn enjoy learning. (The terminology I have adopted is that a tutor is a person not yet qualified, but who is working as a teacher. This will include teachers-in-training gaining experience and many part-time staff, to whom reference will be made later.) He is restricted in his teaching to the standard lesson notes, so he does not have to prepare lessons. However, he is expected to be competent in the subjects which he is to teach.

A person who is a course-writer designs, writes, tests, revises, and plans the layout of the standard lessons for courses in subjects in which he is expert. However, subject experts are frequently not particularly good in the necessary techniques of communication in distance education, so an expert in this may pair up with a writer to form a team to produce the lesson notes. Often this person is a supervisor.

Ideally, a course-writer should have had prior experience as a distance education student and teacher. A supervisor, too, should have had this type of experience, working as a distance education teacher for a considerable period. A person who is a supervisor has the responsibility to see that the interests of the students are given prime consideration. This often means that his major task is to guide the teachers/tutors in their communications to students[35], in their methods of correction, and in their maintenance of adequate routine records. Because of this ability and experience, supervisors often assist in course-writing as mentioned earlier.

The role of the supervisor is very much that of a person reinforcing and maintaining the fundamental training given to teachers/tutors before they commence their work in distance education.

Thus, there is one major training task and two supplementary ones. The major task is to train teachers to carry out effectively the duties given above. In doing this, they should undoubtedly be given some training in both the area of supervision (especially sensitivity in communication)[36] and coursewriting. The latter will give insight into difficulties and techniques of this job and into the reasons behind the structuring of the standard notes used in the courses they are teaching.

Although part of a teacher's normal work would involve simple counselling[37], the staff of a school should undoubtedly include a person trained in this work, to whom more difficult problems could be referred. Training for this is outside the scope of this presentation.

The training of non-teaching staff, although important, will not be discussed here either, except to say that in the training emphasis must be placed on the importance of the educational objectives of the organization and not the procedural ones.

THE SOURCES OF TEACHERS FOR DISTANCE EDUCATION

At present in Australia there are two main sources of persons used as teachers in distance education. They are:

1. Teachers trained for class-room teaching but, for various reasons, placed on the staff of a correspondence school or college of external studies; and
2. Persons expert in the specific field covered by an external-studies course, but entirely untrained as a teacher.[38]

In the second classification, there are two sub-groups – members of one have experience as class-room teachers, usually on a part-time basis; members of the other group have had no such chance to develop insights into the problems of teaching.

The employment of persons to mark correspondence and similar lessons on a part-time basis is common practice, and unavoidable if distance and similar education is to cover the desired range of subjects. If the students are to receive the proper attention, all such work will be done under close supervision. The practice of such people being given lessons to correct at home, and then paying them at a piece-rate per paper "corrected", is to be abhorred. (It is even worse then the 19th Century practice of paying teachers "by results", i.e., in proportion to the number of their students who pass a visiting inspector's examination!)

So far as I have been able to discover, there is no course of training, in Australia at least, for teachers who are to work in distance or similar education, though I believe there should be.

I believe, also, that teachers would welcome such training and the students would benefit from the more effective guidance by the teachers.

STRUCTURING COURSES OF TEACHER TRAINING FOR DISTANCE EDUCATION

In proposing a course for the training of teachers in distance education[39], some assumptions have necessarily been made. Primarily, the objectives of the course are to provide future teachers with the professional competence in the range of areas necessary for them to promote learning in their individual students in knowledge, skills, values, and attitudes.[40]

The assumptions are in the selection of the disciplines to be studied and practised, the objectives of the learning within those disciplines, and the approach towards developing operational competence. In the latter case, the process will be seen to be an "apprenticeship" followed by a limited "internship" – what I. Lewis [41] has called learning practice and teaching practice.

We shall assume that, in all cases, the teacher-trainees are competent in their own subject areas (i.e., their knowledge and skill are well in advance of the material that they are teaching to the students).[42] Otherwise, the teacher-trainees would have to be given training in these subject-areas to this degree. In primary and secondary education, this could easily be done, as it is for class-room teachers. In vocational areas, etc., this would be more difficult.

It is clear, then, that there will be the need for two types of courses. The first, for trained teachers, would be designed to orient and build on their previous training, to enable them to meet the specific demands of distance education as they differ from class-room teaching.

The second course would be for those without teacher-training[43], and would have to be longer and more comprehensive. For those in the non-trained group who are also teaching or lecturing part-time, the training would have significant fringe-benefits to them in this work although not specifically oriented towards it.

Finally, it would be appropriate and serve a significant purpose if the courses were provided as part of external studies/distance education programmes.[44]

In the remaining major section of this presentation, the structure of the second type of course mentioned above will be discussed. This choice is made for several reasons:

1. It could materially assist and improve the standard of adult (chiefly vocational) education[45], which is expanding rapidly;
2. It is an integral programme, equivalent to diploma courses for primary, secondary, and technical education;
3. The modification and reduction of the course to suit persons already trained as teachers for work in other areas of education would not be difficult.
4. The modification and reduction of the course to suit untrained persons already working in distance education would not be difficult.

A COURSE OF TRAINING FOR TEACHERS FOR DISTANCE EDUCATION

It is suggested that this course should be in four sections, the first mainly theoretical, the second essentially teaching skills, the third an educational specialization (with practical work), giving greater professional knowledge and skill in a selected area, and the forth an "internship".

The course has been separated into subject areas for administrative convenience, but these should be regarded as integrated aspects of the one course, This becomes evident in section II, which requires the application of much that is studied somewhat theoretically in section I.

Section I

	Approximate Hours of Study
1 Philosophy and Objectives (in the appropriate area of Distance Education, e.g., Primary, Secondary, Vocational etc.)	15
2 Educational Psychology	60

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		Approximate Hours of Study
3	Methods and Facets of Communication	30
4	Sociology in Education	15
5	Structures and Processes of Distance Education	45
6	Related and Comparative Education	30
		195 hrs

Section II

	Demonstration of a satisfactory standard of knowledge and performance in:	
7	Construction of Programmed-Learning Sequences	30
8	Construction and Use of Tests in Distance Education	30
9	Tutoring in Distance Education	45
10	Planning and Conducting Group Sessions in association with Distance-Education Courses	60
11	Construction of a Course Segment for Distance Education	45
		210 hrs

Section III

	One subject out of:	
12	Curriculum Development	45
13	Educational Measurement	45
14	Research in Distance Education	45
		45 hrs

It is considered, as shown above, that the course would require about 450 hours of study, with additional time spent in related reading, special assignments, internship, etc. (A course for teachers trained for other areas of education transferring to distance education would probably require 200–230 hours, but this would depend on previous training and experience.)

Section IV

(This is the section regarded as providing a limited form of internship.)

15 Operation as a teacher in distance education, responsible for the instruction of at least 25 students in one or two subjects, for a minimum of one semester (two semesters = one academic year) in a manner satisfactory to the examining authority.

16 Responsible for the planning, conducting, and taking a major part in at least one week-end programme (or exuivalent) of student attendance (fifteen hours of teacher/student interaction or more) to the satisfaction of the examining authority.[46]

Notes:

1. Subject 1 must be taken in the first group of subjects studied.
2. Subjects 7, 8, and 9 must be taken concurrently with No. 1, 2, 3, and 4, or subsequently to No. 1, 2, 3, and 4.
3. Subject 10 requires prior completion of No. 1–5, but must be taken concurrently with or subsequently to No. 9.
4. Subject 11 requires prior completion of No. 1–6, but may be taken concurrently with or subsequently to No. 6.
5. Subjects 12, 13, 14 may be taken concurrently with or subsequently to No. 11.
6. Subjects 15 and 16 may be taken concurrently with or subsequently to No. 9 and 10 respectively.
7. Recommended structuring for a one-year full-time course is:
   Semester 1 – Subjects 1, 2, 3, 4, 5, 7, 9
   Hours: 15, 60, 30, 15, 45, 30, 45 = 240
   Semester 2 – Subjects 6, 8, 10, 11, 12/14, 15, 16
   Hours: 30, 30, 60, 45, 45 – – = 210
   450
8. Recommended structuring for a two-year part-time course is:
   Semester 1 – Subjects 1, 2a, 3, 4, 9a
   Hours: 15, 30, 30, 15, 30 = 120
   Semester 2 – Subjects 2a, 9b, 5, 7
   Hours: 30, 15, 45, 30 = 120
   Semester 3 – Subjects 6, 8, 10a, 15a
   Hours: 30, 30, 45 – = 105
   Semester 4 – Subjects 10b, 15b, 11, 12/14, 16
   Hours: 15 – 45, 45 – = 105
   450
9. A major part of this course would be developed around external-studies courses, with trainees having access to course advisers by arrangement, and compulsory attendance at group sessions from time to time. The group sessions would be organized to accommodate, as far as possible, the convenience of the trainees, but still striving to distribute the sessions throughout the course in conformity with the studies being undertaken.

   This approach is recommended as giving trainees experience, as students, with the system they are to operate later as teachers. It is also consistent with the view, previously expressed, that much of the work in the training of teachers can and should be done by external studies combined with the necessary personal-attendance sessions.

   Fortuitously, the recommended approach opens the course to trainees from quite distant areas in relation to the institution. It also makes it available to persons who wish to continue their present employment until they have completed the course and qualify for appointment as trained teachers.[47]

CONCLUSION

There are few areas of education in which less research[48] has been done than in distance education, so that much of what we do is on an intuitive basis. However, the basic principles of education and its associated disciplines are as valid in this area as in other areas of education. In other areas there are plenty of guides, even if there are, so far, no infallible answers.

What has been presented in this paper is, I hope, consistent with what we know about student behaviour, teacher roles, methods of promoting learning, and the factors affecting teachers and students in distance education. In any case, the paper has been presented as a basis for discussion; to the extent that it is controversial, it will have fulfilled that purpose. If any part of the paper appears to you to be a contribution towards a better understanding of the didactics involved in meeting the objectives of distance education, I shall be pleased.

Whether or not you agree with the main facets of the proposals I have put to you on the training of teachers specifically to work in distance education and its associated area of external studies, I most eranestly hope that you agree that some specific training is essential to a closer attainment of the objectives of this very important area of education.

APPENDIX A

BRIEF OUTLINE OF THE COURSE CONTENT

Section I

1 PHILOSOPHY AND OBJECTIVES

The aim of this course is to ensure that the trainee:

(i) identifies some of the key concepts in education;

(ii) recognizes the major assumptions behind the activities in education;

(iii) evaluates the approaches to education implicit in the activities studied;

(iv) formulates a cohesive set of objectives for his work.

2 EDUCATIONAL PSYCHOLOGY

The aim of this course is to develop in the trainee an understanding of the teaching/learning process and, to that end, ensure that the trainee can:

(i) explain the basic elements of human behaviour;

(ii) assess the initial behaviour of the students;

(iii) identify the factors in the learning situation which support or interfere with learning;

(iv) predict the probable effects of specific teaching stragegies;

(v) employ stimuli and procedures appropriate to bring about a desired behavioural outcome;

(vi) recognize psychological difficulties in students and make appropriate decisions to try to overcome them or to call in specialist assistance;

(vii) demonstrate an understanding of the effects of isolation and membership of a group on student behaviour.

3 METHODS AND FACETS OF COMMUNICATION

The purpose of this course is to improve the communication skills and inter-personal effectiveness of the trainee.

In this process, the trainee will:

(i) become a perceptive reader, with sensitivity towards the students;

(ii) show ability to develop rapport with students through interchange of communications;

(iii) develop skills in simple, concise, accurate, and appropriate expression in the writing of instructions, comments, assessments, questions, and advice;

(iv) develop an easily-read writing style and a neat presentation;

(v) demonstrate ability to communicate in fluent, easily understood, well-ordered speech;

(vi) show an awareness of and respect towards the feelings of others;

(vii) demonstrate ability both to stimulate discussion and to take a balanced part in group discussions.

4 SOCIOLOGY IN EDUCATION

The aim of this course is to bring about:

(i) an understanding of sociology in its basic concepts;

(ii) a recognition of the influence of social groups on the students and on the teacher;

(iii) a realization of the influence of social pressures on educational organizations;

(iv) the identification of the place of distance education within the structure of society.

5 STRUCTURES AND PROCESSES OF DISTANCE EDUCATION

The objectives of this course are to bring about an appreciation of the strengths and weaknesses of distance education and how it is operated to obtain maximum educational efficiency.

In this process, the trainee will:

(i) recognize that general characteristics of distance-education courses;

(ii) become familiar with typical course structures;

(iii) become aware of the advantages, limitations, and disadvantages, in the use of various media and technologies in distance education;

(iv) develop understanding of the contributions made, by the other subjects taken, to the development of distance-education courses as a whole, and to optimum teacher-behaviour as a teacher in distance education;

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(v) become capable of describing the detailed routine of the organization in which he is to work, and to explain the purpose of each record and procedure;

(vi) understand the purposes, modes of operation, and teachers' roles in seminars and similar activities designed to provide teacher/pupil contact and work with special equipment;

(vii) become capable of maximizing the contribution to the distance-education process of parents, advisers, and external tutors by briefing and intermittent communication.

6 RELATED AND COMPARATIVE EDUCATION

The objectives of this course are to provide:

(i) an understanding of the place of distance education in the particular section of education in which it operates;

(ii) an understanding of that section within the complex of education;

(iii) ability to analyse the roles of the main elements in the complex and how they arose;

(iv) a realization of the special role of distance education and how it developed;

(v) awareness of the main problems facing education in the community in which it operates;

(vi) an understanding of the main aspects of the systems of education in at least two other countries with extensive programmes of distance education, including their bases, their structures, and their modes of operation, with special consideration of the distance-education component.

Section II

This section is primarily concerned with the various aspects of the teaching process. It is perfomance-oriented and is very much the application of the basic principles studied in Section I, though each segment in this section will require the development of knowledge and understanding of material specific to that segment.

7 CONSTRUCTION OF PROGRAMMED-LEARNING SEQUENCES

This course aims at developing in the trainee:

(i) an understanding of the principles and practices of programmed learning;

(ii) the ability to construct programmed-learning sequences, including the testing and the evaluation of them.

Note: Part (i) would be primarily by programmed instruction and Part (ii) would require the actual preparation of a programme relevant to the trainee's teaching area.

8 CONSTRUCTION AND USE OF TESTS IN DISTANCE EDUCATION

As a result of this course, the trainee will be expected to:

(i) define and assess cognitive educational objectives;

(ii) set appropriate assignments;

(iii) be aware of the difficulties of subjective assessment and the major devices to mitigate these;

(iv) demonstrate competence in the utilization of assignment answers to identify student weaknesses and strengths;

(v) define and illustrate various types of objective tests;

(vi) prepare a satisfactory objective test, tested and validated, on an area of his teaching speciality;

(vii) demonstrate competence in the utilization of the results of objective tests to identify student weaknesses and strengths;

(viii) show an understanding of the various types of distribution of results, and the terms: mean, mode, median, average, skewness, and standard deviation.

9 TUTORING IN DISTANCE EDUCATION

The objective of this course is to develop the trainee's ability to apply his knowledge and skill to the education process, using standard sets of lesson notes.

It will involve examination by a supervisor of lessons "corrected" by the trainee, and a discussion of both the student's work and the corrections and comments with the trainee.

10 PLANNING AND CONDUCTING GROUP SESSIONS

The purpose of this course is to give an understanding of the purpose, necessary planning, typical problems, and principles applying to group sessions in conjunction with external studies.[49] It is intended to give trainees experience in attending and in conducting such sessions.

The trainees, at the end of the course, will:

(i) be competent in the planning for personal-attendance weekend seminars and similar activities;

(ii) show ability in those facets of face-to-face teaching, conducting discussions, giving demonstrations, and counselling trainees on problems arising from studies in distance education;

(iii) demonstrate superior sensitivity towards student feelings, and ability to develop rapport with them as individuals.

11 CONSTRUCTION OF A COURSE SEGMENT FOR DISTANCE EDUCATION

The objective of this course is to make the trainee aware of the problems of course construction and the preparation of instruction material, and competent to write course segments under direction.

To these ends, the trainee will:

(i) analyse a curriculum and determine the course programme of lesson segments;

(ii) identify the various methods of instruction applicable, and evaluate these;

(iii) prepare a sequence of at least five one-hour lessons in a form suitable for sending to be reproduced for use in dis-

tance education. This includes the desired format, the instructions to the students, the illustrations, the assignments, and the test materials, etc.

Section III

This section allows for limited specialization and studies in education at greater depth. Students would be required to select one of three areas.

12 CURRICULUM DEVELOPMENT

This course is related to that on the Construction of a Course Segment.

Trainees will be expected, as a result of this course, to:

(i) be able to discuss a range of theoretical approaches to curriculum development in areas appropriate to their training and experience;

(ii) be prepared to undertake the studies on which decisions on curriculum should be based;

(iii) formulate objectives for a curriculum;

(iv) develop a curriculum to define the desired learning experiences, outcomes, and evaluation methods;

(v) indicate the steps to be taken to apply the curriculum effectively;

(vi) be able to evaluate and modify the curriculum as necessary.

13 EDUCATIONAL MEASUREMENT

This course is an extension of the work in Construction and Use of Tests. It is designed to develop in the trainee:

(i) knowledge of the theory and the research done in the field of educational measurement;

(ii) the skills necessary to use properly established tests applicable to educational objectives and methods, and to students, in the interests of education;

(iii) the skills necessary to develop, apply, and interpret tests for use in assessing student differences and performance, teaching methods and teaching effectiveness, administrative procedurs, and organizational structures.

Note: In all aspects, the needs of and limitations imposed by distance education will be given prominence.

APPENDIX B

IN-SERVICE TRAINING FOR PRESENT TEACHERS

Many of the present teachers working in correspondence schools and colleges, external studies departments, etc., have had many years of experience. However, none has been trained, I believe, in any formal way for the work he is doing. Nevertheless, many of these teachers have deveoped, by informal self-education processes, very good abilities in this work.

Unfortunately, many others, and especially the part-time teachers, are probably far below the desirable level of operation. If there were regular inflow of teachers into distance education, instead of the staff being brought in haphazardly, it would be possible to rely largely on normal dispersal of teachers and their replacement to rectify the situation ultimately.[50] The position is generally otherwise, and Vaizey's second proposition might be considered – concentration initially on key teachers, the catalysts.

Although a specially-designed course and some significant recognition might be available, those most in need of re-orientation and direction would undoubtedly not take up the opportunities offered.

The best way to bring about change in these teachers would be to have them identify for themselves teaching practices which are improvements on their own present practices.[51] This is a delicate procedure and needs subtle organization.

My proposal for thus improving the effectiveness of existing distance-education staff would be by means of a series of carefully-planned, live-in, workshop seminars, in which the numbers, areas of interst, and levels of responsibility of the participants would be carefully controlled.

The participants would be divided into syndicates, all operating in parallel, and all concerned with the analysis of individual behaviour patterns when confronted with a planned, relevant, controversial situation in distance education. Out of this would arise (with some planned stimulation if necessary) a determination and appreciation of desirable behaviour, and a personal recognition of the ways in which each individual's responses would have fallen short of this.

This approach "de-fuses" the explosive situation of "outsiders" coming in and saying what ought to be done. What is just as important, the "most desirable behaviour" is set by the groups and takes into account the unavoidable constraints which are known by the group to be operating.[52] The groups will challenge what they consider unnecessary constraints, and this is healthy.

The seminar would close with individual objectives for change in personal behaviour patterns. A subsequent short conference after about three months gives the participants the opportunity to discuss the outcomes and re-assess the overall position.

When a major proportion of the staff of any one institution has attended this programme, a further programme – on the objectives and organization of the institution – is advisable. This, too, needs similar close but somewhat open-ended planning.

14 RESEARCH IN DISTANCE EDUCATION

(This course includes, within its title, what is termed External Studies Education.)

The purpose of this course is two-fold: the first is to provide the trainee with the knowledge, the skills, and the enthusiasm for research in education; the second is to develop a growing body of research into distance education or areas closely related to this.

The course will therefore be designed to ensure that the trainee can:

(i) describe the aspects of a research project from conception to conclusion;

(ii) identify problems and formulate hypotheses in such terms as to make them suitable for research programmes;

(iii) identify and describe accurately the variables involved;

(iv) design suitable experimental procedures to collect the required data;

(v) analyse the accumulated data by statistical methods;

(vi) interpret the result in terms of the hypothesis;

(vii) make reasonable recommendations on the basis of the research.

Note: Each student will be required to undertake approved research on matters relating to distance education, to consolidate the theoretical studies and to demonstrate the abilities listed above.

REFERENCES

[1] Erdos, R.F.: Teaching by Correspondence. Longmans, London, Miss Erdos dismissed the training of "instructors" in one paragraph, the essence of wich is the statement: "It is unusual for the newly appointed instructors to be advised by experienced supervision until they have gained experience in the technique of teaching in writing by constructive correction and comment." (p.41)

[2] Holmberg, B.: Distance Education. Hermods, Sweden, 1974
Mr. Holmberg gives a wealth of advice to teachers in distance education, but does not suggest any special training for the total task.

[3] UNESCO/CONFEDAD 4, A Retrospective International Survey of Adult Education (in Tokyo, August 1972), 74.1, p.60
"Very few of the full-time staff and virtually none of the part-time staff employed in adult education have undergone any professional training, though many have passed through teacher training at various levels. Until recently, indeed, it was commonly assumed that adult educators required no training at oll or, at least, not the kind of training that necessitates attendance at formally structured courses. But now [that is changing]."

[4] Bettinghaus, E.P.: Persuasive Communication. Holt, Rinehart, & Winston Inc., N.Y., 1968, p.174
"There [have been] a number of studies comparing face-to-face lectures with . . . . . printed lecture materials. The studies tended to show that there were few, if any, significant differences in learning effects . . . . . , but that there were significant differences in the effects on opinions".

[5] Curriculum Guide to Adult Basic Education. University of Nebraska, U.S. Dept of H.E.W., Washington, 1966, p.8
"Adult education is different from education at other age levels because the characteristics of adult students are different from those of other students. No teacher in adult education can be readily effective without an appreciation of adults as adults."

[6] Aso, M., Amano, I.: Education and Japan's Modernization. Japanese Ministry of Foreign Affairs, Tokyo, 1972, p.91
An example from Japan:
"The Government's education policies, which actively incorporated this theory of investment in education, were evolved through the 1960's primarily through the systematization of education aimed mainly at meeting the growing manpower needs arising from economic growth on a systematic basis."

[7] Williams, H.S., in Technical Education for Development. Uni. of W.A. Press, 1966, p.36
"Broadly speaking, the unskilled in the community of today are unemployable . . . . Go one step further and [we can] say that people without appropriate skills according to the demands of the labour market at any particular time are unemplovable without further training."

[8] Wyndham, H.S., Director-General of Education, N.S.W., Teachers and Tomorrow, An address to the Australian College of Education. July 1968
"One obvious aspect of the necessary response to this challenge [of education for tomorrow] is the need for a new conception of adult education. In the new industrial world, adult education must be thought of, not as a miscellaneous group of activities on the fringe of the educational programme, but as the provision of resources of mind and spirit available, as a matter of course, for all who have come to realize, or can be stimulated to realize, their need for such resources."

[9] Holmberg, B.: Distance Education. Hermods, Sweden, 1974, p.45
"The methods of distance education are, on the whole, primarily applied in adult studies and occupational training. This is true both about industrial and developing countries."

[10] Goslin, D.A.: The School in Contemporary Society. Scott Foresman & Co., Glenview, Ill., USA, 1965, p.45
"As our society has become more advanced, the rate at which innovations have been forthcoming has increased. We are now faced with the prospect of dealing not only with a technology that is changing but with one that is changing at an accelerating pace."

[11] Brown, J.W., Lewis, R.B., Harcleroad, F.F.: A-V Instruction. McGraw-Hill, USA, 1959, p.4
"Modern technology has provide[d] films, filmstrips, radio, television, photographic slides, magnetic boards, large transparencies, stereophonic and monaural tape and disc recordings, stereoscopic pictures, improved colour and black and

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white processes, and literally hundreds of other communication resources. These include new tools which reach masses of people at high speed, with low unit cost, in great quantities, with almost unlimited flexibility, and often with excellent quality."

[12] Fragar, Chalmers, Woodburne, Lamacraft: The Complexities of Training Technical Teachers, in The Role of the Commonwealth in Technical Teacher Education in Australia, Sydney Teachers' College, 1971

[13] Review of Educational Research, Vol.XXXVIII, No.4, Oct. 1968, p.407 et seq.

[14] Campbell-Stewart, W.A.: The role of the teacher in advanced societies, in Towards a Policy for the Education of Teachers, Taylor, W. (Ed.), Butterworths, London, 1969, p.21
"The sociological and psychological magnifying glasses are valuable instruments for limited vision. The teacher will have to know far more about them. But he will have, now as never before, to be tenaciously sensitive about standards, values, norms."

[15] Rogers, J.: Adults Learning. Penguin, Middlesec, Eng., 1971, p.45
[A student's family background] will affect the student in the learning situation itself, influencing the amount of responsibility the student feels he can undertake for his own learning and the way he reacts . . ."
"Whatever his social class, every adult student comes to further education with a well-developed set of expectations about what it will be like."

[16] First Report of the Commonwealth Committee on Advanced Education (The Wark Report), Com. of Aust., June 1966, p.21
"There is little reason today, and there will be still less in the future, to assume that the only way to provide . . . education in small centres is to rely on traditional facilities. One can envisage a choice of correspondence material, tapes, films, . . . etc."

[17] Waetjen, W.B., in Studying Teaching, Raths, Pancella, Van Ness (Ed.), Prentice-Hall, N.J., USA, 1967, p.434
"It would appear that one of the most powerful motivating factors available to the teacher is her attention to the [student] which she may give or withhold at will."
"Feedback, particularly of a positive nature, is apparently the most salient technique by which the teacher keeps the [student] motivated."

[18] Beard, R., in Teaching and Learning in Higher Education. Penguin, Middlesex, Eng., 1970, p.167–8
" 'My research results suggest that reading a book on study methods or attending a lecture on the subject are not satisfactory methods of improving performance . . . We must be prepared to teach students how to study effectively and not just tell them how to set about it.' " (Bassey)
"However, Bassey's experiment suggests . . . . that teachers must be constantly providing full information to students on their performance and showing alternative models for them to imitate."

[19] Mead, M., in Selected Educational Heresies, (Ed.) O'Neill, W.J., Scott, Foresmah & Co., Glenview, Ill., USA, 1969, p.372
"We . . . need to recognize articulately that there are other routes to competence than the one route provided by the conventional school."
"The adult's need and right to study more is as great as (perhaps greater than) his need and right to hold the same job until he is 65 years old."

[20] The N.S.W. Dept of Tech.Ed. Handbook, 1974, alone lists approximately 600 courses.

[21] Shah, Dr M.R., Schooling and Schooling for What, in the Presidential Address to W.E.F. Conference, Tokyo, 1973
"On one side of the spectrum are people like Ivan Illich, who are advocating 'de-schooling society' and on the other nations wanting to build more schools and still more schools . . . ."
"Equal emphasis will have to be placed on different kinds of learning-be it in the school or outside."

[22] Whitelock, D.: Adult Education in Australia. Permagon Press, Aust., 1974, p.193–4
"The external studies students at the University of New England [Australia] have never been considered second-class citizens taught by second-class methods."
"[Perhaps that is one reason why] over the period of 1955–1964, 78 % of the external students sitting for university [degrees] at New England passed, compared with 79 % for full-time students."

[23] Pratt, H.C., Head of Div. of Ext. Studies, R.M.I.T., in External Study – a Vital Component in Education. A.C.E., Melb., Aust., 1968, p.103.
"I believe it wise for any new course to be taught by class for at least one year before an external course is introduced."

[24] Current Affairs Bulletin, June 1, 1972, Uni. of Sydney, p. 29
This is difficult to do, because of insufficient evidence on desirable personality characteristics.
"In any case, while the shortage of teachers continues in Australia, the development of more effective methods of selecting entrance to the service is hardly a realistic question."

[25] Erdos, R.F.: Teaching by Correspondence. UNESCO, 1967, p.200
"Examples of the type of persons who find especial value in distance education (correspondence education, external studies, etc.) given in Postmark: Progress of the University of Wisconsin (USA) include:

Over 2000 students in difficulties with studies in high schools, e.g., desired subject not available, unable to keep up with the class, etc.
Nearly 3900 employed persons otherwise denied training.
Nearly 150 home-bound or hospitalized persons, etc.
About 1000 members of the armed forces"

[26] Richmond, W.K.: Teachers and Machines. Collins, London, 1965, p.32
"Common to all these new ventures is the conviction that

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something needs to be done, and can be done

(a) to relieve the teacher from the drudgery of purely mechanical tasks, and

(b) to permit each pupil to learn in his own way and at his own rate.

On both points they are fundamentally different from mass media . . ."

"They suffer from an inherent inability to accomodate themselves to the individual learner's problems. This is because in any mass medium, communication is always a one-way affair . . ."

[27] Whitelock, D. (Ed.): Adult Education in Australia. Permagon Press. Australia, 1974, p.191–1

[28] McLaren, J.: A Dictionary of Australian Education. Penguin, Australia, 1974, p.173

[29] Henderson, A.D.: Policies and Practices in Higher Education. Harper & Row, N.Y., 1960, p.101

"It is reasonable to suppose, then, that these young people [who do not have a good command of English] . . . should receive additional and special training in listening, speaking, and writing as they progress with their college studies. The usual college courses may not suffice."

[30] Lamacraft, K.R.: Recruitment and Training for Teachers for technical and Further Education, A Submission to the Australian Committee on Technical and Further Education, Canberra, 1974

[31] Adams, J.: Modern Developments in Educational Practice. Uni. of London Press, 1924, p.139

"There always has been a trend towards conditions that will make it possible for pupils to be treated as individuals rather than as mere elements in a collective unit. Sometimes a fairly satisfactory solution of the difficulty was forced upon teachers by what appeared to be adverse circumstances. This occurred, for example, in some of the old Scottish parish schools where there was but one schoolmaster to a whole room-full of children and each came up in his turn to have his work examined and a new lesson set . . . The plan was found to work exceedingly well."

[32] Holmberg, B.: Distance Education. Hermods, Sweden, 1974, p.31

"It is important to all students to acquire good reading habits which enable them to learn quickly and memorize efficiently. In oral teaching, shortcomings in the student's reading technique may be counterbalanced by his listening to lectures and discussions and further to the teacher's activity in engaging him in didactic conversation. Distance students must either completely or partly do without this neutralizing effect. Thus a good technique of study is of even greater importance to them than to other students."

[33] Erdos, R.F.: Teaching by Correspondence. UNESCO, 1967, p.18

As Miss Erdos has written:

"By directly and informally addressing the student, the writer presents himself as a person with an understanding of the student's needs and interests because he has earlier travelled the same way himself."

(It is my contention that training for teachers in distance education should make certain that this statement is true; otherwise the teacher is being professionally dishonest.)

[34] Leavitt, H.J.: Managerial Psychology. Uni. of Chicago Press, Chicago, USA, 1965, p.161

"One of the best of many things to be said for a serious effort by A to understand B's feelings is that those A's who undertake such an analysis often end up changing their own objectives."

[35] De Vito, J.A.: Communication: Concepts and Processes. Prentice Hall, N.J., USA, 1971, p.190–1

"Education is always a problem of getting our learnings, of developing orientation, of discovering in what direction to go and how to get there . . . . . Why do people give directions poorly and sometimes follow excellent directions inadequately?"

"First of all, people who give directions do not always understand the complexity of what they are communicating. [They are] suffering from what has been called the COIK fallacy – Clear Only If Known. . . . The communication of teachers and pupils suffers from this COIK fallacy."

[36] Krech, Crutchfield, Ballachery: Individual in Society McGraw-Hill, N.Y., 1962, p.291

"The meaning of any utterance is determined by the experiences of the individual with words and by the total context in which the utterance is heard – the external and internal verbal and non-verbal contexts.

"If two persons have had different experiences with words or if they perceive the communication context differently . . . pseudo-communications, a failure to exchange meaning with accuracy, will result."

[37] Montross, H.W.: An Experimental Study of Effectiveness of Field Assistance on . . . Correspondence Study Students, J. of Ed. Research, Nov. 1956

Good counselling helps to build in the student "the kind of confidence in the school providing it that /in turn/ promotes good study achievements".

[38] Evans, R.N.: Foundations of Vocational Education. Chas.E. Merrill Pub.Co., Columbus, Ohio, USA, 1971, p.18–19

"Vocational teaching cannot be created overnight. Some experienced workers who are naturally good teachers are recruited to become teachers of vocational education. Along with them are recruited many workers who are unqualified [i.e., not "natural teachers"], and a few workers who are unqualified both as teachers and as workers. The result is a dilution in quality . . ."

[39] Evans, R.N.: Foundations of Vocational Education. Chas.E. Merrill Pub.Co., Columbus, Ohio, USA, 1971, p.284

"As we recruit others to the task, we need to remind them and remind ourselves that our [illegible] are to serve students, youth and adult, by helping to meet the manpower needs of

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the nation (and of the world), increasing the options of students, and lending intelligibility to all of education."

[40] Bantock, G.H.: Conflicts of Values, in Towards a Policy for the Education of Teachers, Taylor, W. (Ed.), Butterworths, London, 1969, p.132

The confusion in colleges about the roles of teachers reveals . . ." the sheer lack of professionalism in the preparation of teachers.

"It should be possible to decide a body of knowledge, historical, psychological, sociological, and philosophical, which would clarify some of the issues for teachers; and these disciplines have reached a state of development where they should be taught by experts.

"/The teacher/ should be taught, first, to instruct, then to teach . . . , and only finally, to educate."

[41] Lewis, I.: Problems facing the Teaching Profession. P.E.P., London, 1967?

[42] Campbell-Stewart, W.A., The Role of the Teacher in Advanced Societies, in Towards a Policy for the Education of Teachers, Taylor, W. (Ed.), Butterworths, London, 1969, p.20

"Academic knowledge has to be learned by teachers . . . not as a closed system, but as a living organic activity."

"For school purposes it needs re-interpretation in terms of authoriatitive simplification and relevance."

[43] Mountbatten, H.R.H. The Duke of Edinburgh, in Speech, 20th Feb., 1964, quoted by Weeden, W., Director of Comm.Office of Education, at Inter-Uni.Conf. on Part-Time Teaching in Australian Universities, May 1967

"It would be difficult to over-emphasize the importance of provision of part-time study with its great advantage of having vocational experience and theoretical training advancing together."

[44] Hermann, G., at World Conference of Organizations of the Teaching Profession, Tech. and Voc. Ed. Seminar, Sydney, Aug. 1970

"Such [technical] teacher training should be provided by educationalists (i.e., teacher trainers) - some of whom are experienced technical teachers with specialist training in education and psychology; as far as possible, the trainee teacher should be trained by at least one trainer with similar vocational interests."

[45] Hughes, P., in Australian Higher Education, Herman and Selby Smith (Ed.), p.37

It is important that the course be constructed that the graduates will not say, as most graduates of teacher training in USA, England, and Australia, that it is "lacking in the academic rigour of their major studies, yet not sufficiently practical in character to help in facing the real problems of teaching"

[46] Wyeth, E., and Watson, W., in Teacher-Pupil-Task, Oeser, O.A. (Ed.), Tavistock Pub., London, 1960, p.24

"The teacher's usual role as a methodologist must undergo re-orientation if co-operative group work is to be successful. Under /normal/ teaching the techniques and method he tends to develop are those by which he can best present the subject matter to the pupils. Under groupmethods he must place his emphasis upon the methods and techniques to be applied by [the students] to ensure the satisfactory development of their activities and learning."

[47] The Australian Technical Teacher, Report of Conference Resolutions, Vol.5, No.2, May 1973, p.7

"Professional teacher training may be full-time or part-time . . . The total period of teacher training should be at least equivalent to one full-time year."

[48] Raths, J:, in Studying Teaching, Raths, Pancella, Van Ness (Ed.), Prentice-Hall Inc., N.J., USA, 1967, p.478–9

"All of us must join the search for answers, but most important, college professors and school administrators must encourage teachers to take on a major role in the process . . . [Unfortunately] few teachers receive training in research techniques . . . . .

"What are the ways to become familiar with the research process? I can think of none better way than to become immersed in a research study."

[49] Schæfer, C.J., Kaufman, J.: New Directions for Vocational Education. Heath Lexington Books, Lexington, Mass., USA, 1971, p.90

"There must be a two-pronged attack on the preparation of teachers for the wide spectrum of occupational preparation. One would focus on preparatory training, and the other on in-service, or continuing education."

[50] Vaizey, J.: Education in the Modern World. World Univ. Library, London, 1967, p.107

The broad lessons in bringing about changes in education are that the training of new teachers "is likely to be more effective than the upgrading of existing teachers, but that the careful application of intensive in-service training to certain key teachers may well be the clue to changing the tone of a whole educational system."

[51] Husen, T., in Australian Journal of Education, Vol.16, No.2, June 1972, p.133

In this regard, we should consider the advice by T. Husen, on the strategies of educational innovations based on experiences in Sweden in the 1960's:

"We have to work with the teachers, try to teach them to think creatively, and thus innovatively. The implication of this is, among other things, that the administrative apparatus should be geared to support an innovative climate."

"If we want the teacher to change basic instructional practices, we should not begin by telling him that what he has so far been doing is wrong, but by helping him to discover the consequences and outcomes of his practices and thus help him to discover what is wrong . . . What is required could, with a new [interpretation], be called sensitivity training."

[52] Blake, R.R., Mouton, J.S.: The Managerial Grid. Gulf Pub.Co., Texas, USA, 1966, p.12

"As in any field of applied endeavour, disagreement can arise between what is the best theory and what theory is most realistic for practical application in a 'live' situation. However, as in any applied setting, the answer regarding what is best can only be given in the light of existing realities . . . But the choice is neither arbitrary nor random . . . [for they will] reflect the kinds of assumptions [the decision-maker] applied in that situation."

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Distant Study as an Opportunity for Learning

Critical Comments on a Didactical Approach to Distance Education

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This is not a paper. It is, as the author himself describes it, "a few more or less angry remarks", recommending strongly that discussions on didactical problems of distance education should be replaced by the perspective of those who learn.

But why waste your time on an abstract? You had better read those "angry remarks" yourself.

Distant study has for a long time been regarded and examined almost exclusively from the point of view of the "teachers". Earlier, I too did that at times. Today, however, I claim that such a perspective is not useful for distant study in practice, but rather is most often even harmful. For this reason I am no longer interested in the "didactics of distant study", "media didactics", and "education". I now deal with other questions instead, e.g.

- Why does an individual want to learn?
- What conditions must be fulfilled in order that an individual may learn well?
- What determines whether an individual realizes that learning can improve his situation?
- Under which social conditions is which type of distant study the best opportunity for learning for which individuals?

When one has become accustomed to viewing the problems of distant study from the perspective of those who learn and their individual and social situations, one loses all interest in such discussions about the "theory of education" which deal only with the problems of the teachers.

As one example, let us look at the discussion about the "media" and their "didactical relevance". A discussion has been going on for some years already which roles can be played in distant study by radio and television, tape recorder and video recorder, videodisc, etc. It seems to me that such discussions have little to do with the problems of learners and a great deal to do with the problems of hardware producers. For producers of radios, television sets, video recorders, etc. it may well be of interest to activate enthusiastic "educational technocrats" and thereby create a demand for their products and build up a market – that I can understand very well. I only doubt if these activities in educational machine development are in fact of any use to the learners. Rather, I think it is in the interest of most learners to be able to study at any time, to be able to repeat a sequence at any time and as often as they choose, to be able to speed up or slow down the study tempo at any time, to be able themselves to add and remove remarks or comments, etc. Consequently, the questions I address to the "media" are, for example:

- Which medium allows the learner to study at any time he likes?
- Which medium allows the learner to study at his own individual pace (which can even vary within the course of his study)?
- Which medium allows the learner to repeat a sequence at any time and however often he likes?
- Which medium allows the learner to alter his study material and then to regard these modifications as ineffective at will?
- Which medium can be used without apparatus or special material conditions?
- Which medium can be easily transported and used in many different places at the will of the learner?
- Which medium can be used by the learner without disturbing other people in the same room?

Of course this list is incomplete. I could raise many more such questions, all of them important in judging the "learner friendliness" of a medium (consider only the question of price, to name another example!). But that is not my point. I want merely to show which perspective I consider to be particularly important when discussing "media problems".

Now to a different problem: in discussing drop-out rates it is customary – but perhaps this is a German specialty – to regard all drop-outs as unsuccessful and as failures. We have got used to calculating the "success quotient" by saying: "100 people began the course, 10 people got the certificate for the course, ergo: the "success quotient" is 10 percent."

Hardly anyone bothers to ask to what extent the individual learning goals differ from the goals of those who planned and set up the course! Who says the learner must complete the entire course? Why cannot the learner be satisfied with half of the course? Why cannot the learner be satisfied with half of the course? Or, why can he not get out of the course only that which interests him? And if he is satisfied, must we then try to talk him into believing he must be mistaken, that he cannot possibly be satisfied, since he is after all "unsuccessful" and "a failure"?

And finally, whatever gives educational politicians, planners, and

educationists the right to the absolute decision as to how long an educational process may last? How long do we still want to demand, for example, of 385 individuals who began their distant studies on September 1, 1975 that they achieve their goal in all subjects by Jyly 31, 1976 – regardless of their individual skills, their work, and their private and social situations? How is it that no one asks whether such educational politicians, planners, and educationists have maybe gone mad? What is then to become of those people who are not yet finished by July 31, 1976, or who have completed only one subject? Are they too "stupid"? Or are not rather the planners of the course stupid? When shall we start to take democracy in distant study seriously and to take the "of age citizen" seriously? King Friedrich II of Prussia – not a little under the influence of Voltaire – was above the quarrelling between the religions and Christian denominations. He declared that in his kingdom each "may become holy in his own fashion". Thus, my last question: Why should the learners in distant study not learn according to their own fashion, but according to the fashion forced upon them by educational politicians, planners, and educationists?

"Teachers", explained already Galileo Galilei, "can teach a person nothing. They can only help him find something himself".

This also holds true for distant study. Let us begin, therefore, to accept the fact that the learner and his learning situation is the most important thing in distant study, to which all else must be subordinated. For then even the language used in the study material, to name a final example, will no longer be determined by the vanity and reality gap of the authors, but by the language of the learners.

Criteria for the Evaluation of Distance Education Programs

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The intent of this paper is to state the criteria for the evaluation of distance education programs, to support them in theory and with practical examples when possible, and to see how these criteria fit and intermingle with the whole system of distance education.

The paper concentrates on those criteria which are common to all distance education programs, whether private or under governmental control, university or high school level, small or large. For this reason, some specific ideas or areas, unique to various types of distance education programs, are not covered in this paper.

In the first section of the paper I will establish the principal criteria and their justification for the administration of a distance education program. Following the administrative section is a discussion of the quality of the administrative, instructional and other staff. The third section discusses the criteria against which one can decide whether one is serving the student in the best possible way. The fourth will deal with the learning material package which is defined as a course syllabus, most often supported by the use of A-V material and/or oral teaching.

ADMINISTRATION OF DISTANCE EDUCATION PROGRAMS

The administrative responsibilities of an institution are manifold. They include the formulation of the institution's general policy and keeping students' records. The mechanics of advertising, fiscal matters, office operations as well as the evaluation of the program are also important aspects of the administration of distance education programs. Let me begin with basics, i.e. with the office and the equipment.

Office and equipment

Understandably the size of the office space is relative to the size of the program. Nevertheless there are some specific, minimum criteria which must be met in order to conduct a successful program. The chief administrator should have his own office, spacious enough for two simultaneous visitors. He needs this space for meetings with the faculty and for advising students. He also needs quiet space for his more demanding duties. For a small program, only two other rooms are necessary. One for the secretary's or secretaries' working purpose and keeping records and the equipment. The other should be reserved for students in which to take their examinations. If the secretaries' room is small and there are a number of various machines, an extra room would be advisable. The nature and number of equipment and accessories totally depends on the developmental stage of the program and its size as well as on the economical capability of the institution. In other words, the institution must have enough space and equipment to successfully run its program at the desired level.

Records

The institution must keep accurate records on students and their progress. This is important for advising purposes, for protection against possible charges, for being able to replace a record lost by the student or by authorities to whom it was sent, and for research and statistics about the program. They must be kept confidential. Only the enrollee himself and appropriate authorities should have access to the information on his records, and this only with the consent and knowledge of the chief administrator of the program.

Policy

All institutions offering distance education programs must have a written policy as to objectives and general procedures. This not only gives guidance to the administration of the program but also shows the prospective clientele what to expect as to the quality of service. The chief administrator has to see that the matters expressed in the institution's policy are followed. It should be reviewed occasionally to accommodate required changes for the betterment of the program.

Promotion

The promotional material must be true. This means that deceitful gimmicks in advertisements as to the program, personnel, services, credit, and job opportunities for those having completed a course or program are unethical. In the same way, the real value of all di-

plomas and certificates must be made public. In other words, if the diploma awarded after a correspondence study program does not qualify a person to do some work or enter a field which requires, say, a state examination and a license, that fact must be made clear.

Finance

The institution must be financially responsible. The overall budget must be kept "in the black" with the combined revenues from student fees, government or other grants, money from the parent organization, donations, etc. This is to guarantee continuous good service for all enrollees. The course fee should be kept at the minimum to facilitate the enrollment of the maximum number of those who want to advance their education through the means of distance education. The profit must not be exuberant. It should be enough to cover the operational and developmental costs of the program. If there is a no-refund policy – many correspondence study departments of the universities cannot themselves decide it – this fact should clearly be stated to the prospective enrollees. In general, the profit margin should dictate the refund policy, i.e. if one can afford a generous policy, in all fairness, one should adopt one.

Evaluation

Every institution should evaluate its program constantly in order to fulfill its commitment to the students: as good service and program as possible. To improve the office procedures the chief administrator should encourage suggestions from those daily involved in such kind of work. A valuable tool in getting to know what students think of the educational quality of the program is to attach a course evaluation sheet to the course syllabus. This should always be examined by the chief administrator. It should not be handed to the instructor before his association with the student has ceased. Only those statistics about the program which are meaningful for its improvement should be kept. This function should be entrusted to the office staff.

ADMINISTRATIVE, INSTRUCTIONAL, AND OTHER STAFF

There is no substitute for competent instructional and administrative personnel in any field. This is especially true for the distrance education programs, if and when one thinks of the esteem these programs have had and should enjoy.

Administrators

Why does the public look down at us? Why does the government want to regulate our operations? Why does a faculty member not associated with correspondence study give little respect to our method of teaching? The answer to all of these questions is the same: many of us are not professionals in a real sense, because of inappropriate academic preparation for our duties. Many of us took the job because it was, in some respect, better than our earlier one. Many of us really did not have an urgent need to make improvements when entering the field and many never developed that need. Why not? Many did not have the theoretical background to understand the complexity of the field in order to make improvements. Some have, to be sure, during their long careers in the field learned many aspects of the field. But this might have not been enough. Perhaps one learned only the mechanics without penetrating deep into the didactics of the field. Consequently, he is repeating year after year the same old things without being able to contribute anything original. For the above reasons, those who could lend a helping hand economically or otherwise do not have much incentive to do so. For the same reasons, the experts in various fields experiencing constant progress have little respect toward the administrators of the distance education programs or toward the program itself.

The gloomy picture above is not without remedies. To know the weaknesses of the correspondence study administrators is a necessity for developing criteria for this aspect of distance education programs.

It has become obvious that the academic schooling of independent study administrators is of crucial importance for the esteem and development of our field. Because there is no training in universities especially designed for distance education administrators one has to select those subjects which best prepare for the tasks to be performed as chief administrators of distance education programs. Because most of our clientele are adults on many counts: legal definition; a person responsible for his living; a person beyond compulsory education; and because a big part of the job has an educational overtone, the field of adult education should be the basic training for distance education administrators. This should be complemented with work in educational research, for we need this knowledge for evaluating our programs. Courses in psychology are necessary for our dealings with faculty and others and to get to know the basics about learning. A few courses in management are required for directing our staff and for knowing office procedures. Courses in guidance and counseling are a must for us to effectively deal with the many problems associated with students. For obvious reasons courses in advertising, tests and measurement, and in communication will round out the education of our ideal administrator. But this basic schooling, preferably up to a doctor's degree to gain some additional muscle in dealing with the faculty and the outside world, is not enough. One has to develop himself continuously, especially in those areas where one is the weakest. Good means for keeping up with new developments are the various regional, national and international conferences arranged in our field and in those related to it. The on-the-site visits to the operations of our colleagues are very helpful, because they give the point of reference for comparison of the effectiveness and reasonableness of the procedures used.

Instructors

Before an instructor takes up his challenging job of directing the

correspondence study students' work he is to visit with the chief administrator of the program and the office staff to become acquainted with the persons who will act as a link between him and the students. That visit will also familiarize him with the office procedures as well as with his responsibilities as a teacher of the unique and varied group of students. This all makes him a better teacher, for he will understand the complexities of the program and the special situation of the student.

Ideally the teacher should evaluate the assignments submitted by the students within 24 hours after receiving them, but he should never keep them longer than three days. For the sake of rapid feedback and to keep the student's motivation high in studying the course the above rule is one of the most important in distance teaching. Another is the teacher's good and extensive comments on the student's answers.

The teacher should help the student whenever he has made a mistake either by writing or stating orally on a tape the correct answer or by referring to the appropriate place in the text, in the syllabus, etc. to make the student find out the right answer. In both instances the teacher should also explain why the answer is wrong and show him how he can improve his answers. All comments must be so clearly stated that there will be no possibility of misinterpreting them. The advising of the student about his errors must be done as gently as possible not to dampen his eagerness to study the course. The comments should encourage two-way communication. It can be accomplished by letting the student feel that the primary purpose of the comments is to teach him to succeed in the course and not to criticize his efforts nor to test his performance. This approach also contributes to the student's determination to complete his course.

In case the teacher wants to give up his teaching it is necessary that he notify the chief administrator one month prior to his termination to enable the administrator to find a good replacement for him. If a teacher takes a trip lasting longer than two weeks he is obliged to find a replacement for himself for that period or to furnish the office with his forwarding address.

Course writers

This section will be limited to procedural aspects, because the course writer's product, the learning material package, will be dealt on later pages.

Before beginning to prepare a learning material package the prospective author – he should be an acknowledged teacher and familiar with his field or approved by his department's chairman in case of a university correspondence study program – should visit the chief administrator or the one responsible for course development. This is quite necessary, for most course writers must be made familiar with the special requirements of distance education teaching. After the visit he should be supplied with a course writer's handbook to fortify his memory. This handbook is to be recommended but not quite necessary. A friendly visit with the course writer is more important for the program than no visit and sending a handbook to him.

To guarantee that the course writer has understood the method and the best way of presenting his subject matter, whether a written syllabus with or without auxiliary use of A-V material or a combined oral-correspondence study method, he should present the introductory part and one lesson to the administrator before going ahead with his preparation of the course. After studying that material the administrator should arrange another meeting with the course writer to give his final advice on how to best put the writer's special talent into effective use in the distance method of teaching.

Before the final copy of the course with the examinations, if any – typed by the correspondence study office secretaries and proofread by them – is ready for publication it must be sent to the course writer for his approval, because he, in the final analysis, is the one responsible for its content and correctness.

Office staff

A sufficient and competent office personnel with a pleasant attitude toward people is vital for the success of a distance education program. For this reason, their selection should be based on predetermined criteria. To free the administrator(s) for supervising course development, and for faculty and public relations, advertising the program, budget planning, student counselling, research, and for the development of new procedures and policies, a chief administrative secretary is necessary in every distance education office. She will be in charge of the routine business and other secretaries. The number of other secretaries depends on the extensiveness of the program. To have too few of them is detrimental to a good distance education program.

STUDENT AND DISTANCE EDUCATION PROGRAMS

The center of our efforts should be the student. His welfare must be the guidepost in our attempt to improve the program. There are many criteria against which one can check whether one is serving the student in the best possible way. The benefits accruing from competent administration and instructional staff have been dealt with earlier. The most crucial tool for a student's learning, the learning material package, will be discussed later. Let us now look at some other aspects of distance education programs which are beneficial to students.

Quality program

All distance education programs should be worthy of the student's money and time. This should be every administrator's concern ir-

respective of the type of the program. So the administrators of university correspondence study departments offering only courses approved by the academic departments and which some students need to graduate should also seek after the quality of the offerings as much as the administrators of programs aiming at improving the vocational skills of the enrollees in which the number of course completions either sustains or defeats the program. They should not be thinking that students are only after credit. Perhaps a few students do not care whether they learn or not, if they only pass the course. But the fact remains that most do. Secondly, it is the moral responsibility of the institution to offer as good a program as possible. Thirdly, academic credit must have the same value irrespective of the way it was earned. Fourthly, a poor correspondence study program tends to tarnish the fame of even excellent academic residential programs.

Although my personal experience with follow-up letters to students who have not sent assignments during a long period of time has been discouraging, I sincerely recommend this practice. It shows that the administration of the program cares for the student. In addition, some need this extra push to continue their studies, although the answers to my letters and questionnaires have shown that a large portion of the drop-outs have a valid reason for their decision. The most surprising fact is that this decision of not completing the course seldom has anything to do with the quality of the program.

Admission

No student should be denied the privilege of studying an independent study course on the basis of sex, race or national origin. The only valid criterion for no admittance should be a student's incapability to benefit from the course.

Handling of complaints

Every administrator must be aware of all the complaints by the students, even of their slightest dissatisfaction with the program. The reasons for students' displeasure with any part of the program should be carefully scrutinized. If one finds them valid, the situation should be corrected immediately. One also has to remember that it is better to serve a few students well than many in a mediocre way.

Counselling

The chief administrator should devote sufficient time for advising students requesting it. In large programs a full-time person might be needed for this task. The answering of routine questions by students should be entrusted to the chief administrative secretary. One has only to be sure that she knows the answers to these types of questions.

The main reason for counselling is to show to students that we care for them, that we are genuinely concerned with their problems, and that we try our best to help them. As a collateral benefit to this approach the student's disposition becomes positive toward the program which again tends to motivate him to succeed in his studies. Some students need to know which program or course best fits their background and abilities. Helping them select the right course or program saves them money and time. In addition, it deflects the frustration of one's finding oneself spending needlessly for the economic benefit of the institution. A student's special requests during his studies, like speeding up the return of his assignments faster than the regular time, should be carefully evaluated. If at all possible, positive action toward the student's wish should be taken.

LEARNING MATERIAL PACKAGE

The basis of a sound educational program in distance education is the study guide or, as some prefer to call it, the course syllabus. When I refer to the course syllabus I do not mean only a written booklet with a number of instructions on how to study the course and the teacher's written contribution to the student's learning. What I mean is a package of learning material that, in addition to the conventional course syllabus, may include one or more of the following: the use of A-V material, oral teaching, radio, and television. Let us look at the components of this learning package and establish criteria which should be included in every evaluation of distance education programs.

Forms

As a minimum the syllabus should include General Information and Application for Examination forms. The former is an account of important facts about correspondence study in that particular institution including time limits and general procedures (See Appendix A). The latter is (are) necessary for students to inform the office when they will take an examination. The application form must inform the student of the eligible supervisors and the required procedures before the examination (See Appendix B).

As a safeguard of the integrity of the examinations the supervisor should be informed with a separate form about the examination rules and other aspects of his role as test proctor. This is to be sent to him by the office after the student has indicated his intention to take the examination. Consequently, it is not included in the syllabus (See Appendix G).

A Course evaluation Form at the end of the syllabus will show the earnest intention of the institution to better its offerings. It should concentrate on a few important things and allow space for a student to freely express his/her concerns about the program (See Appendix C).

To minimize the impersonality of the medium a Personal Data Sheet

before the lessons is valuable. It also helps the instructors to direct their teaching toward the individual problems when they know pertinent information about the student (See Appencix D).

Whenever a course is of the nature that the student will need an official transcript of his studies a Request for Transcript form should be included at the end of the syllabus for the convenience of the student (See Appendix E).

Whenever the course contains a package of A-V material to be obtained from the correspondence study office a request form for them should be included with the syllabus (See Appendix F).

Introduction

The introductory pages before the main part of the syllabus should include the preliminary pages – title page, copyright page, Table of Contents, List of Tables and List of Figures – as well as the introduction to the course. Because of their nature some courses suffice without a List of Tables and that of Figures. The copyright of the course encourages the author to give his best, for no one can steal his way of presentation. For that important reason, every institution offering distance education program should protect its faculty's products through this means.

The introduction should begin with the objectives of the course. They should be specific and detailed, if each lesson does not have its objectives in behavioral terms. In the latter case the general goals of the course are sufficient. The textbook information should be complete. The course writer should be discouraged from using many texts, because it would increase the cost too much for many students. In addition, too much assigned reading will kill the motivation to study. A choice of texts is to be recommended. It not only makes it easier for students to acquire the required text(s), but it will force the course writer to formulate his comments, written assignments and other tasks in a way which contributes to more efficient learning. In a few instances, when texts are hard to get or no suitable one is available, it is better to incorporate the pertinent reading material fully into the course syllabus.

In many courses it is advantageous to use other material in addition to texts. Instructions on how to use them must be clear and concise. A list of suggested additional reading is valuable for those students who want to dig deeper into the matter. In some cases a reference to recommended reading material is best to mention in the lesson itself if it is restricted to that particular lesson topic. How to study the course should have its own section, method of study, in the introduction. These directions should be a detailed account of the various steps. The information about the nature and duration of examination(s) will, on its part, guide students' learning. This last section must also mention if students are allowed to retake any of the examinations and the requirements of each examination. I also think that to give a student a chance to retake an examination is very humane, for it takes care of possible sudden headaches and the like during the examination. To heighten the value of the course grade the final examination should be comprehensive. One has to require the course writer to explicitly indicate the composition of the course grade, i.e. how much lessons, mid-term, final, projects, etc. contribute to the course grade. This not only guides the student's studying but also motivates him to do a good job, if he knows that lesson grades contribute toward the course grade.

Parts of lessons

The minimum requirements for a lesson as to various sections are: objectives, reading (or orther) assignment, teacher's commentary, study questions or activities, and assignment (written or other) to be submitted for an instructor's evaluation.

The objectives must be stated in behavioral terms. This means that the enrollees must be informed about what they will be able to do, to what extent, and under what conditions after successfully completing the lesson.

The reading or other learning assignment must be relevant to the objectives. It is to be a holistic whole, i.e. to contain one or more logival entities. It is to be reasonable in length.

Commentary must be extensive and informative and show the mastery of the subject matter. By no means can it be a mere paraphrase of the reading assignment. If there is no text used, it should include all the necessary information to cover the objectives. It should refer to the text material when assigned and to that of the previous lessons to help the student see connections and reinforce learning. It is to cater to important aspects of each assignment. To be helpful it has to include explanations of the most difficult and important aspects of the learning assignment. Especially those ideas which can be anticipated to be hard for the student to understand should be interpreted and complemented by appropriate examples, figures, tables, etc. Summary of the lesson content is sometines crucial. In short, the commentary must assist the student to understand and master the main ideas of the course through the course writer's elaboration, supplements, and explanations of the content.

Study activities – self-checks, study questions – should focus the student's attention on key ideas to help him learn what is important. Their use will facilitate the need for a small number of assignments to be sent for the instructor's evaluation. This again reduces the busy work by the student and the teacher, because the assignments need not check factual and recall knowledge. In other words, study questions should be used to test everything for which the student is able to find a solution in the text or commentary. To be sure that students study the questions or perform the activities the course writer should mention in the introduction that one or two of them will appear in the examinations. As an additional benefit, this practice will contribute to better learning by the student. A

key is helpful for fast feedback. It can follow each study question section or the key to all self-check questions can be placed after the last lesson.

The assignments to be sent for evaluation should be based both on the material from the text(s) and the commentary. They should contribute to the realization of the stated objectives and be appropriate to the course: use of maps in history, interview in communication courses, a field study in sociology, etc. To avoid boredom and to test different sides of learning they should be varied in format: essay, multiple-choice, etc., and offer a choice of equivalent assignments (occasionally) to take care of individual backgrounds in interest. It is important not to have too many of them. The comprehension of the key concepts should be checked through written assignments. They should relate to the previous parts of the lesson and to the course and lesson objectives. The assignments should initiate creative and critical thinking. Some of them should relate to the student's experience. A few should be analytical and comparative questions and some, applications of the learned material. All assignments should be so formulated and have such detailed instructions that the student is sure what is expected from him.

Presentation of material

The style of writing should fit the level of the audience and be consistent with the subject matter. An imaginative approach to the subject matter, pleasant and friendly attitude toward the student spiced with occasional humor are also features to be sought after in a good syllabus. The language used must be correct.

It is important to have motivational aspects in the syllabus: Students are highly motivated to do good work in preparing for the assignments if they are of the quality that a part of the course grade is based on the performance of them. This practice is to be recommended, because most students are used to being rewarded for their work in one way or another. It is also a motivational factor when the different sections of the lessons are interwoven and build toward and finally reach all course objectives. The professionalism of the course motivates especially good students as do thought-provoking and interesting comments and assignments. Individual projects are highly recommended, for they activate students, which helps learning and reduces the drop-out rate. Especially those courses which students voluntarily take for their own improvement must meet the expectations and needs of the enrollees.

Use of A-V material

Audio-visual material should be used whenever it enhances the learning, contributes to the attainment of the objectives of the course, and motivates the student to stay with the course by enlivening the presentation. It is important that whatever new knowledge is gained through its use should be checked in assignments and/or examinations to guarantee that the course writer has used it for the above three purposes, not only because its use is popular.

Having this in mind, tapes, for instance, can be used as 1) an integral part of the course. This way they add with their content to the other information presented; 2) a choice between written and oral commentary. This fact takes into account the individual preferences of learning method; 3) additional work for extra credit or for a better grade. This use has a great motivational value. Even a poor student will try to complete the required tasks, because he knows that if he does not do well, with the extra work he can pull himself through; and 4) a base for alternative assignments. By taking into account the individual differences in interest in various aspects of the material this contributes much to learning process and students' willingness to study the course.

The use of A-V material, film strips, slides, radio, television, pictures, charts, etc., is often vital to the success of the course. When and how many of these auxiliary means to use depends on the nature of the course and the availability of these materials.

Creativity in distance education

The innovative way of teaching is like the icing on the cake. It means a unique way of presenting the subject matter. To demonstrate the meaning of creativity in the correspondence study method some examples are given below.

To require the student to review a book is good teaching in many courses. Not only to ask students to review a book but to tell how to write a good and a poor review and to include examples of both is creative teaching. To take into consideration the student's work on the lessons when assessing the final grade is a sign of a good course syllabus. Being able to give 40% of the final grade on the basis of assignments means creative, good questions and/or projects. The utmost utilization of A-V material to reach the course objectives shows a creative mind. To give the student the opportunity to meet the teacher or call him at a special time greatly personalizes the course. Optional reading and written assignments, use of a combination of various techniques of learning, use of simple, inexpensive experiments, contract learning, practice examinations before the supervised ones, practical tasks, and substituting some assignments with an appropriate project suggested by the student and approved by the instructor are further examples of the ways a course syllabus becomes creative in its approach to learning in the method of distance education.

The physical make-up of the course

The syllabus must be bound durably and have attractive covers. The use of different colors for the various forms in the syllabus with their appropriate location will help organize the study guide. A proper and consistent use of space between lessons, paragraphs,

etc. as well as various kinds of type will add structure to the syllabus and make it easier for students to read.

Examinations

Before each supervised examination there should be a short account of the nature of the examination and other pertinent information in the course syllabus so that the student knows what to anticipate. All examinations should, in addition to this written explanation, be preceded by a practice examination, similar in content, type, and length to the supervised one.

The examinations should be based on the objectives of the course and resemble the assignments in the lessons. Enough time should be allocated for them to measure ability instead of emphasizing fast thinking. In courses offered both in the residential setting and by distance education the examinations must equal each other.

CONCLUSIONS

I have tried to present this paper in a way which would contribute to our awareness of the influence of the various parts of distance education on each other, one of the central goals of this conference. I hope that I have been successful in achieving this goal as to the criteria for the evaluation of distance education programs.

APPENDIX A

University of Wyoming
Correspondence Study Department

You and the Department

Correspondence Study Department exists to serve you. We are happy to answer all your questions by mail or phone (307-766-6322). Our mailing address is

Correspondence Study Department
University of Wyoming
P.O. Box 3298, University Station
Laramie, Wyoming 82071

All questions concerning the content of the course should be directed to the instructor and sent with the lessons to the above address. Please notify us of any change of address or name by separate card or letter.

Textbooks

Orders for textbooks should be sent to the University Bookstore, P.O. Box 3255, University Station, Laramie, Wyoming, 82071. In addition to the complete textbook information, the title and course number of the correspondence course must be indicated on the book order form. This form is in the Correspondence Study Bulletin. Books will be mailed to you C.O.D. The Bookstore will repurchase books if they are in good shape and if they are still used for the course.

The Adult Education Library has a few copies of the required textbooks. They may be rented for four-month periods. The rental fees – subject to change without notice – are as follows: $1.50 for the first four-month period, $2.50 for each subsequent four-month period. The corresponding figures for books costing less than $3.00 are: $0.75 and $1.00. Address your request to the Adult Education Library, Coe Library Bldg., University of Wyoming, P.O. Box 3334, University Station, Laramie, Wyoming 82071. The statement for rental fee will be mailed to you under separate cover at the same time as the books.

Lessons

You may either type or write legibly your lessons. Use good Quality 8 1/2 x 11 inch paper. Leave a 1 1/2 inch margin on the left hand side for instructor's comments.

Before beginning to prepare the written assignment of a lesson, study the instructor's commentary and the reading assignment for that particular lesson. Answer the written assignments as well as you can.

Put your name on every paper. Each lesson must be folded into one of the cover sheets provided for this purpose. The information requested on the cover sheet should appear on the outside. Place sufficient postage on the envelope to avoid delay. Always use zip code numbers.

To profit from the instructor's comments you should not send in more than one lesson at a time if not otherwise indicated in this course syllabus. If you have a deadline for completion of the course, or any other reason to send in several lessons at a time, request permission to do so from your instructor on an early lesson.

Usual letter grades are used. Papers marked X or F should be rewritten and returned with the corrected lessons before submitting additional lessons if not otherwise indicated in the introduction.

Combined Oral and Correspondence Study

Several high school courses may be completed by studying two or three lessons, depending on the course, under the guidance of an appropriate high school teacher and the remaining lessons by correspondence. If this course is one of them, the details are given on the page listed in Table of Contents.

Examinations

Most examinations are supervised. An application for each examination is included in this course syllabus. They always follow the page giving the examination information. Applications for examinations can be sent with the lessons, but they should not be placed under the lesson cover. Graded examination papers are not returned to students. They will, however, receive an evaluation of their performance on the examinations. If not otherwise stated in this course syllabus examination grades largely determine the course grade.

Course Evaluation

At the end of this course syllabus there is a course evaluation form. Please help us to improve the course by filling it out even if you do not, for one reason or another, complete the course.

Statement of credit

When the required work for college level courses has been completed, the

Correspondence Study office mails the final grade to the student and the Office of Admissions and registration and Records here at the University of Wyoming. Request for transcript is included at the end of this course syllabus for those desiring an official transcript.

When the required work for high school courses has been completed, the Correspondence Study office mails the student and the student's school a statement of credit.

Students expecting to use credit toward graduation, certification or other requirements must have completed all the course work three weeks before a transcript or statement of credit is needed.

Time Limitations

One year from the date of enrollment is allowed for a course completion. Requests for an extension of one year, however, may be made with the submission of the renewal fee of $3 per course prior to the expiration date. Only one extension for a course enrollment is permitted.

Refund

After a student's application for enrollment in a correspondence study course has been accepted, no refunds are made.

APPENDIX B

THE UNIVERSITY OF WYOMING
Correspondence Study Department
Box 3294, University Station
Laramie, Wyoming 82071

Dear Student:

In order to receive credit for the course the examinations must be taken in the testrooms of the Correspondence Study Department of the University of Wyoming or under the supervision of one of the following officials:

School Superintendent, Principal, Guidance Counselor;
College Dean, Department Head, Registrar, Counselor;
College faculty member with a rank of Assistant Professor or higher;
Education Training Officer in the Armed Forces.

You are not permitted to take the examination without proving your identity.

You are allowed to take the examination after you have submitted for grading all the lessons preceding the examination and after you have received them back. You may send your application for each examination with the last preceding lesson, but not under the cover sheet.

If you live in or near Laramie, you are to take the examination in Room 238, Knight Hall, University of Wyoming. Examinations can be taken any day from 8 a.m. to 12 noon, and from 1 p.m. to 4:30 p.m., except during the weekends, without prior notice. It is your responsibility to arrive early enough to be able to complete the examination in the time allowed.

If you will take the examination somewhere else than in Laramie, you should fill out also Part B in the form below. You should contact one of the persons listed above and make arrangements with him for a time and place to take the examination. The date set for the examination cannot be earlier than two weeks from the date you mail your application for examination to us to allow sufficient time for the test to reach the supervisor. It must be taken within three weeks from the proposed date. Please indicate that date below.

The supervisor is not paid by the Correspondence Study Department.

Cut on the dotted line and send to the above address.

APPLICATION FOR EXAMINATION

Part A

Name of Student	Course Number and Title
Full Address	Date Course was Written/revised

Part B

Name of Supervisor	School Name, City, State, Zip Code Examination will not be sent to street address
Official Title	Proposed Examination Date

APPENDIX C

COURSE EVALUATION FORM

You are requested – not required – to complete this course evaluation form and to return it to The Department of Correspondence Study. It will not be forwarded to the instructor until your final grade has been recorded in the Office of Records. Please fill it out even if you do not complete the course.

The questions below are asked to help us to improve the course and service to you. Your objective opinion and your time in answering the following questions are much appreciated.

A. Service by this department

B. Lessons

C. Examinations

D. Instructor's comments on the lessons

E. Other

Mail to: Correspondence Study Department, The University of Wyoming, Box 3294, University Station, Laramie, Wyoming 82071.

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APPENDIX D

PERSONAL DATA SHEET

Name _____

Address (town & state) _____ Age _____

I am attending high school ____ college ____ and I am a _____
grade level

I am working and my occupation is _____

I have ____ I have not ____ access to a library

The approximate size of the library is _____

My academic/vocational plans are _____

_____

I have earlier studied the following related subjects _____

_____

My expectations form this correspondence study course are _____

_____

My reason(s) for enrolling for this course is (are): ____

____ needed for graduation ____ needed for certification

____ not offered in school ____ unable to attend (state reason)

____ schedule conflict _____

____ failed the course earlier ____ other (state reason)

_____

The credit I need in this course must be turned in to my school by _____
date

The above information will assist your instructor to give service suited to your individual needs. Please complete the above data sheet and mail it with the first written assignment to Correspondence Study Department, The University of Wyoming.

APPENDIX E

Office of Admissions and Registration and Records
The University of Wyoming
P.O. Box 3435, University Station
Laramie, Wyoming 82071

REQUEST FOR TRANSCRIPT

Please send the transcript of my studies at the University of Wyoming to

_____ _____
Person or Institution Street & Number

_____
City, State and Zip

My name and address are

_____ _____
Student's Name Street & Number

_____ _____
Student's Social Security Number City, State and Zip

Please include on the transcript my grade in the correspondence course

_____ _____ _____
Department Number Title of Course

which I completed on _____
Date

My last attendance at University of Wyoming (If any) _____ _____
Semester Year

NOTE TO STUDENT:

1. Send the request to the address above.
2. Submit your request two weeks before you need the transcript.
3. You are issued a separate transcript for a correspondence course only if you do not have any other work at the university.
4. You are issued 10 free transcripts in any 12 month period. Any additional transcripts will cost you 50c per copy.

APPENDIX F

A-V MATERIAL REQUEST
Form A

Please send _____ (Type of Required Material) _____ (Type of Optional Material) for the following course: _____ (Number and Title of Course)

to _____ (Name) _____ (Street Address)

_____ (City State Zip)

My deposit $_____ for (check type applicable) Required ( ) Optional ( ) material is inclosed.

DIRECTIONS: Send only money orders or checks. Make them payable to The University of Wyoming.
Deposit must be for all material.
Lost or unreturned material will forfeit your deposit.
Partially damaged material will forfeit the amount of your deposit which is required to replace the damage portion.
Your deposit will be returned to you after all the loaned material has been received by this department in good condition.

Note: Form B is to be used only for requesting material to be used after the midterm examination.

A-V MATERIAL REQUEST
Form B

Please send _____ (Type of material) for the following course: _____ (Number and Title of Course)

to _____ (Name) _____ (Street Address)

_____ (City State Zip)

APPENDIX G

THE UNIVERSITY OF WYOMING
Correspondence Study Department
University Station, Box 3294
Laramie, Wyoming 82071

Dear

The student, _____, has notified us that you have agreed to supervise the enclosed examination on _____. Se very much appreciate your cooperation.

If the student fails to show up on the above date or on any other date suitable for you both within a three-weeks' period from the original examination date, please mail the examination to the above address.

Please note the following:

Before any testpapers can be given to the student he must show positive identification.

The student shall not have any access to notes or books unless he is authorize to use either or both of them. The permission, if any is stated on the first page of the examination.

All the papers to be used during the examination are supplied by the Correspondence Study Department.

The time allowed for the test is indicated on the first page of the examination.

After having completed the examination the student must return all the material given to him to the test supervisor.

The examination, all the papers used by the student and the form below should be returned in the enclosed envelope. It must be sealed and mailed by you.

Sincerely,

Heikki I. Lesbinen, Coordinator
Correspondence Study Department

Enclosures

Please cut on the dotted line

The University of Wyoming
Correspondence Study Department

Mr. Mrs. Miss _____ (Name of Student) took the _____ (Title of Course) under my supervision in accordance with the instructions supplied by the Correspondence Study Department.

Signed _____
Test Supervisor

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Public Evaluation of Correspondence Courses

Criteria for Accreditation

Mr. Dagfinn Skår

Chairman, State Council on Correspondence Education, Norway

This paper describes the public accreditation arrangement established in Norway since 1948, the criteria used for evaluation of correspondence courses, and the evaluation procedure.

The arrangement has served its purpose and guarded the quality of course material. However, a critical revision was undertaken in 1974, and some alterations in criteria and procedure have been suggested. The paper also describes these suggested alterations, sprung from the striving to find a happy balance between control and freedom, so that the public evaluation may serve both society, the individual student and the individual school.

THE CRITERIA OF EVALUATION

Since 1949 Norway has had a State Council on Correspondence Education. The Council acts in an advisory capacity to the Ministry of Education according to a statute law of 1948 on correspondence schools. Such a law was after the war considered necessary to protect the public against speculation in educational needs.

The law requires accreditation for all correspondence courses intended for the Norwegian market. The prescribed evaluation is handled by the Council, which also checks that the teachers and other educational staff of a school can document qualifications comparable to those required in the public school system.

The schools must be non-profit organizations, with separate accounting if education by correspondence is only a part activity of the firm. They are subject to inspection by the Council and obliged to submit annual reports.

Courses are normally accredited for a period of 5 years. During this period the schools are responsible for keeping their courses up to date as regards content and special requirements for public examinations.

The Council has developed guidelines for the work of its course evaluation experts. The criteria of evaluation are as follows:

- courses should be self-contained – giving preproduced, stored information sufficient for successful home study. No dependence on face to face instruction, live radio or TV programs.
- relevant subject matter.
- pedagogical presentation and didactic progression suitable also for the average learner.
- sufficient exercises to ensure understanding and learning.
- adequate number of papers/tests for control and correction by the school.
- appropriate vocabulary and style of language.

An amendment to the law of 1948 was adopted in 1969, requiring accreditation also of the correspondence institutions (schools), not only of their course material and correction work. As a corollary the duties of the Council were extended to comprise also instigation and encouragement to the schools to undertake experimental and developmental work within their field, self-initiated or initiated by the Council.

The law states that a school can forfeit its accreditation if the required standard of quality is not maintained or if necessary information is not submitted to the Council.

The philosophy of a school, its entire pedagogical program and educational service, accordingly, falls under the evaluation and surveillance of the State Council on Correspondence Education.

The evaluation criteria have served their purpose and there is unanimous agreement that they have guarded the quality of course material and prevented a lowering of standards. But the members of the present Council feel there is room for improvement. A critical revision of the established criteria was therefore undertaken by the Council in 1974, and this work was carried out in close cooperation with the Association of Norwegian Correspondence Schools (NBI). The amended edition has recently been handed over to the Ministry of Education for consideration.

The new criteria and the suggested alterations in the procedure of evaluation of course material have not yet been acknowledged and adopted. They reflect, however, the thoughts of people who have for years been active in course production or accreditation, and may, therefore, serve as a representation of the Norwegian view on what the criteria for public evaluation of correspondence courses ought to be.

The 6 criteria listed above have been retained and 6 additional ones have been suggested:

- a clear definition of target group (student category for whom the course is developed)
- a statement on educational background (knowledge/skills) necessary to benefit from the course
- adequate description of the objectives of the course (preferably in behavioural terms)
- minimum requirements in pedagogic/didactic aids (study guide, specification of sub-goals per lesson, devices for continuous feedback and motivation, evaluation and test service)
- specification of audio-visual media/material integrated in course
- proper listing of optional, supplementary media/material

These 6 new items are intended to serve both the experts of the Council and the individual (prospective) student when trying to form an opinion of a course.

The trend of thought behind the new items or criteria is that the pedagogic/didactic follow-up activity of the school (administration and teachers) is as important to the student as is the course material itself.

THE EVALUATION PROCEDURE

When a course is submitted for evaluation, the Council will place it with an expert for scrutiny. The expert writes a report covering the listed criteria of evaluation, and as a conclusion advises the Council to recommend or not to recommend accreditation. If the Council have doubts about the conclusion, another expert will be consulted.

The evaluation process is a very thorough and conscientious affair. It is, however, based entirely on the presented course material and is therefore predominantly theoretical and subjective. So far no documentation from test groups on student performance has been required. This is obviously a weakness, because it is of paramount importance to know how the material functions with the students. Every teacher knows that he may have to revise his opinion of a text-book after having used it in the classroom for some time.

This is one of the reasons why the Council has advised the Ministry of Education to institute an alternative procedure of evaluation.

Another reason is a feeling that public authorization of their courses may, unintentionally, have had too much of a tranquillizing effect on the schools. They may have stayed away from innovation and new departures in course construction in order to play safe with the Council and its experts. They may also have been tempted to acquiesce with a minimum quality, seeing authorization as the only goal. By shouldering the full responsibility for the minimum quality of accredited course material, the Council may have drawn the attention of the schools away from the fact that students' needs are even more important than public requirements, and so may have whittled away the aspirations of the individual school to produce the best possible courses.

The Council will now try to mend the situation by offering the schools a freer hand and more responsibility for the development of course material. The Council's proposal to the Ministry is to introduce, tentatively, a new procedure of evaluation in addition to the traditional one. It will then be left to the school to choose between the procedures.

The alternative procedure invites the schools to apply for a preliminary permit to market the course when presenting it to the Council. Such permit will be granted provided a routine check does not reveal serious deficiencies in the course in relation to the criteria of evaluation.

After having been used for 12 – 18 months the course must be submitted for accreditation, together with a statistical survey of enrolment and student performance.

This procedure will, hopefully, simplify the accreditation process. In cases where the course material is of quality and functions satisfactorily, the final evaluation for accreditation will be much less time-consuming than it is to-day. By putting maximum effort and capacity into the preparation of a course and into their didactic service the schools may save valuable time, because the time needed for bureaucratic procedures will be drastically reduced.

In cases where a thorough evaluation is still necessary, the subject matter expert will have a better and broader basis for his work.

We are striving to find a happy balance between control and freedom whereby we can protect the home student from abuse and exploitation, without unnecessarily delaying the process of course production or blunting the incentive of the schools to develop and improve their material and their service. The criteria of public evaluation of correspondence courses must serve

- society
- the individual student
- the individual school

by forming a sound and practical basis for the work of the evaluating expert.

Criteria for the Evaluation of Distance Teaching Courses by State Authorities

Mr. Willi Karow
Mr. Uwe Storm

The Federal Institute for Research on Vocational Education and Training (BBF), Berlin, Germany

The authors begin by describing the development and the current state of distance teaching in the Federal Republic of Germany, and the structure and activities of a state agency for the supervision of distance education. They point out that state intervention in privately run distance teaching is based on the principle that the participants in distance teaching courses should be protected from mistaken investments of time and money. However, this goal can only be reached indirectly, by way of influencing the behaviour of distance teaching institutes. The authors indicate the levels of influence and explain the criteria that are employed in examining distance teaching courses.

The following levels of intervention are described:

- advertising, information and advice to potential participants,
- conditions of the contract between the institute and the participant,
- the didactic quality of the teaching material and of the pedagogical supervision of the participants

The authors see the benefit of evaluation for the distance teaching institutes in the fact that the state agency does not restrict its examination to a mere statement of the result; it produces a detailed report containing advice for improving the teaching material.

1. INTRODUCTION, OR WHY A STATE OFFICE EVALUATES PRIVATE DISTANCE TEACHING COURSES

1.1 "The day is coming when the work done by correspondence will be greater in amount than that done in the classrooms of our academies and colleges, when the students who shall recite by correspondence will far outnumber those who make oral recitations." This statement made by W.R HARPER in 1886 describes the trend correctly; this becomes particularly clear when we substitute the word correspondence for the more general concept of distance education.

In most western industrialized countries the major characteristics of the traditional correspondence courses are the written word and the teaching letter. They have been complemented by the development of new media such as audio-media, visual media, telephone, radio and television. Several of these new media have also begun to play a part in traditional privately run distance education, either as supplements or as vital constituents, as for example records, sound tapes, sound tape cassettes, cassette films, experimental kits, telephone, etc. Because of high cost or prohibitive legal regulations, other telemedia such as radio and television can as a rule be integrated into correspondence courses only when co-operation agreements between the private institutes of distance teaching and the responsible authorities for these media can be made. This has, however, seldom been the case.

1.2 The state influences distance education to an increasing degree. This may take the form of creating direct state-run or state-supported institutes for distance education in the public hand. Or the state may intervene by way of legislation to regulate the private sector of distance education in the public interest, to make the scope of educational opportunities transparent, and to make it possible to take account of all available educational resources in state educational planning.

Examples of one or both forms of state influence on distance education can be found in Norway, the Netherlands, Belgium, France, and above all in the Federal Republic of Germany.

In the case of the Tele-Kolleg I and II, semi-public distance teaching with the aid of telemedia became well-known even outside the Federal Republic of Germany (FRG). There are further examples of this kind, such as the Quadriga radio courses (Funkkolleg) or a course intended to qualify the instructors in vocational training (called: Training the instructors – Ausbildung der Ausbilder). The latter course was carried out by a large number of public and private institutions working together in a coordinating committee.

However, in the FRG the field of further education through distance studies is still dominated by the private institutes. The significance of private distance education becomes obvious when we consider the

number of participants involved, presently about 250,000 – more than a third as many as the total number of students in all the colleges and universities of the Federal Republic. 137 institutes of distance education offer about 1300 courses of study, among them a considerable number for which there is no equivalent available to the general public in the public educational system. This is particularly true of courses in specialized vocational qualifications. It is evident that the maintenance and improvement of this supply of education must be in the public interest, if only because the state neither at present nor, probably, in the future can satisfy the demand for education visible here. Basically, the public is responsible for education and training from the primary level up to and including adult education, the responsibility of the state being of course greater at the primary and secondary levels. The state is therefore justified in demanding from private educational institutes (in this case institutes for distance teaching) that they meet certain standards corresponding to those set by the public educational system in its information, advertising and actual teaching.

1.3 Thus in the sixties the government took legislative action after an increasing number of complaints had indicated that a number of private commercial distance teaching institutes were more concerned with their profits than with their educational goals, and after advertising practices and much-publicized abuses in this field had given distance education a bad name in the public eye.

According to the federal constitution of the FRG the states are autonomous in all matters of culture and the schools, and the federal government is responsible for vocational education. It was thus necessary for each state as well as the federal government to make a law that created supervisory authority for private distance education.

The Vocational Education Act of 1969 provided for the creation of a Federal Institute for Research on Vocational Education and Training (BBF). One department of this institute was given the authority

- to investigate vocational distance education,
- to make suggestions for its further development and improvement,
- to evaluate vocational distance education courses submitted for examination by private distance teaching institutes.

For the first time in the Federal Republic this created a state agency charged with research, development and supervision of private distance education.

Only a few weeks later the eleven states of the Federal Republic set up a common agency for the supervision of distance teaching, the Zentralstelle für Fernunterricht (ZFU). Whereas the Federal Institute, the BBF, not only evaluates courses of distance studies but is also specifically charged with research and development, the ZFU primarily evaluates courses and is concerned with administrative problems such as the organization of state examinations for those who have completed courses of distance education.

Corresponding to the constitutional division of responsibilities between the German federal government and the federated states, the two agencies divide the fields of distance studies they evaluate, so that

- the BBF evaluates vocational courses of distance education, and
- the ZFU evaluates courses through which the participants can prepare themselves for examinations within the school system

The evaluation criteria are developed by the two authorities in cooperation, so that there is considerable conformity in the content of the criteria used.

1.4. The following propositions summarize the reasons for state supervision of distance education and the manner in which it is carried out.

1.4.1 In the Federal Republic of Germany the state has recognized the extent and the significance of private distance studies for training, education and further education, and supports this sector.

1.4.2 The field of private distance education in the FRG has been and is very heterogeneous; there was a danger of the reputation of distance teaching being damaged by commercial institutes with questionable practices.

1.4.3 For this reason very liberal laws were passed with regulations to which the private distance education institutes submit on a voluntary basis.

1.4.4 The ruling principle of legislation is to protect the participant.

1.4.5 The distance education institutes benefit from an official seal of approval which they may use in advertising the courses approved; in addition they receive reports suggesting how to improve their courses.

1.4.6 Participants in approved courses can receive financial aid.

1.4.7 The evaluation is based on operational criteria which all distance education institutes are acquainted with.

2. EVALUATION OF THE INFORMATIVE MATERIAL AND THE ADVERTISING OF DISTANCE EDUCATION INSTITUES

2.1 If we are to believe the advertising of many private commercial distance education institutes in the FRG distance education is the chance for anyone, if only he has the will to get ahead, to gain vocational advancement and a considerably higher income. An analysis of the informative and advertising material that was submitted to the state agencies in connection with the evaluation of courses showed that two aspects were especially emphasized:

- the direct economic utility of the knowledge and skills acquired in distance teaching courses (higher income), and
- the higher status in the "achievement society" to be gained by better achievements.

Pretentious course titles (export manager, products manager) and vague descriptions of the target group (anyone who can think logically and who has a few years of vocational experience . . .) give the impression that the construction of such courses can hardly have been based on analyses of the vocational field, the qualifications required for the job or the activities involved.

An additional difficulty exists particularly for the area of business training, for which there are no occupational analyses or regulations: potential participants often cannot inform themselves about the educational prerequisites. Thus they are all the more dependent on the texts of skilled advertising men, which are often wordy and persuasive but not at all precise.

Interested persons are often not sufficiently informed about the demands that distance education will make on their time and money: the information material describes much too one-sidedly the advantages of distance education, which certainly exist (no interruption of employment, time and place of study at one's disposal).

Such advertising is designed to suggest to the largest possible target group that the course would be suitable for them. These institutes of distance education accept a high drop-out rate due to disappointed expectations (demands prove to be too high or too low, etc.) for the sake of the initial financial gains from the course beginners.

To protect participants against such unreliable advertising and information there are two requirements to be made:

- the information about distance education courses should be complete and reliable;
- the educational prerequisites for successful participation and the necessary requirements for admission to state or public certifying examinations should be precisely described.

2.2 The revised regulations for both state agencies which were just enacted by the competent bodies at the end of 1974, take account of these requirements. They require that the written informative material supplied to interested parties give a clear picture of the distance education course.

2.2.1 The objective of the course must be described unambiguously The potential participant may not be hindered or prevented from recognizing the area or level of study (basic, advanced, or further education) by imprecise descriptions. In many areas of vocational further education there are no job analyses or regulations. In these cases it is the duty of the distance education institute in its informative material to give a sober and complete description of the job and the work involved, based on vocational analyses and qualification requirements.

2.2.2 The necessary educational prerequisites must be mentioned. This involves in many cases not merely school certificates but to a much greater extent, especially in further education, practical knowledge and skills which can only be proven by having exercised a specific vocation for a specific length of time. If the objectives of the course are on a higher taxonomic level, the special abilities required of the participant must be mentioned as well.

2.2.3 Statements about the certifying examination must clearly indicate whether it is an internal examination of the institute or whether the course is suited to prepare the participant for a state or public examination. In the latter case the requirements for admission to the examination must be stated according to the regulations of the state authorities, chambers of commerce or trade, or other authorities. Especially as regards this last requirement, complete information must be insisted on. It is proven that a number of participants in distance education courses have been excluded from external certifying examinations because they failed to fulfil only one condition (for example, school or vocational certificate) or because they could not fulfil it at the time of their application (minimum age).

2.2.4 The total cost both by payment in advance and by payment at regular intervals must be clearly stated. Experience in the evaluation has shown that potential participants are often not informed about the costs until they sign the contract. Since the monthly costs especially at commercial distance education institutes can amount to 100 DM or more and a course which lasts several terms can cost several thousand DM all in all, complete information is absolutely necessary. This is all the more important as in many cases additional costs accrue for additional work materials or complementary face-to-face tuition (fees, lodging, travel costs).

2.2.5 The duration of the course and the time load for the participant (work hours daily or weekly) must be stated. The informative material seldom describes clearly how much time a participant must invest, quite aside from the effect that domestic conditions can have on the work load. If a distance education course is to be completed within the duration stated by the institute offering it, it is not unusual for a time load of 50 to 60 work hours a month to be required. That is the equivalent of about a third of the working hours that the majority of the employed participants spend on the job.

2.3 Informative material which fulfils all the requirements mentioned above may still not be sufficient to advise potential participants in distance education. As long as distance education is not included in public educational advisory services, distance education institutes offer advisory services of their own within their recruitment of participants, in ways which are often questionable.

In the FRG this problem has been aggravated by the employment of so-called educational consultants as salesmen on commission. It can usually be assumed that their "advice" is primarily aimed at persuading the customer to sign a contract.

Suggestions have been made to develop a system of educational consultation for distance teaching which would be similar to the state-run educational advisory services: decentralized advisory bureaus either publicly administered within the department of cultural affairs or that of labour, or organized by the associations of private

distance education institutes, A further suggestion has already been put into effect by the Federal Labour Bureau (Bundesanstalt für Arbeit) for its own staff: to qualify vocational guidance personnel especially for giving advice in the field of distance education.

It should be clear to all those concerned with distance education in the Federal Republic that the problem of guidance in distance education cannot be solved merely by outlawing commission salesmen. It is necessary to see that they are replaced by trained personnel oriented to the general aims of educational guidance and capable of explaining impartially the relationship between the course offers of the institute they represent and the educational system as a whole.

"Visiting consultants" are even more legitimate in the area of distance education than in other educational fields. Successful distance study depends not only on the presence of the necessary educational prerequisites but to a considerable degree on home and family conditions. In addition, it is known that further education is especially important to provide equality of opportunity for persons who make little or no use of stationary educational consultation because their educational background makes them less mobile.

Consultants of commercial distance education institutes who make home visits should fulfit the following requirements:

- the consultation should never be combined with agreeing to a contract,
- the consultants should have a minimum qualification sufficient to enable them to give guidance according to the following stages:
  - establishing personal contact
  - finding out vocational interests and goals
  - clarifying all individual prerequisites of the person seeking advice
  - weighing the goals of the person seeking advice against the possibilities open to him on the basis of his prerequisites
  - giving information both about the vocational options which come into question for the person concerned and about the different possibilities for training and educational assistance
  - offering help towards realizing vocational decisions.
- the offer of the distance education institute represented by the consultant should not dominate the consultation but should be described informatively and objectively in relationship to the entire available supply of education.

The new regulations for the evaluation of courses by the state authorities do not include such requirements for visiting consultants as yet, since there is no legal basis for them at present. Nevertheless the regulations as they are will contribute to reduce the number of cases in which commission salesmen take advantage of persons seeking further education and thus will help improving the reputation of distance teaching in the FRG.

The regulations require in the first place:

2.3.1 that the informative material requested must be sent separately without the visit of a "consultant". By now all distance education institutes that submit courses for evaluation fulfil this requirement. The request for information may be informal or makes use of a coupon attached to an advertisement.

The regulations valid until the end of 1974 allowed a procedure by which the request for informative material could be combined with the request for a "consultants" visit, as long as a reasonable interval was allowed between the receipt of the material and the visit. The regulations now require that:

2.3.2 Two requirements have to be fulfilled before a salesman, consultant, employee or representative of a distance education institute can visit or take up personal contact with an interested party to conclude a contract. The interested person must first have

- received written information (first approach) described in the advertising of the distance teaching institute, which should satisfy the criteria of the regulations. Then he must have
- requested a visit by a representative of the institute in writing (second approach) after having received the written information material.

At least for the supply of courses carrying the official seal of approval, this should ensure that interested persons first ask for written information which they study at their leisure. Then they can decide whether they would like an additional consultation with a representative of the distance education institute, or whether they have no further interest in the course offers, or perhaps they prefer to request additional information in writing.

This procedure may seem questionable from the viewpoint of the profitability of such distance education institutes which conclude most of their contracts through salesmen. On the other hand it should lead to a decrease in the number of drop-outs, which at present amount to up to 80 % of the initial participants within the first year of study depending on the kind of study course. It seems probable that a considerable portion of the drop-outs are due to the pressure of salesmen whose visits were not unrequested but nonetheless basically unwanted.

2.3.3 Salesmen, consultants, employees or representative of distance education institutes who make home visits are now required to have certain minimum qualifications if they are to give information about officially approved courses.

- They must themselves have a school certifying examination at least at the level of the Realschule (science secondary school) or have completed vocational training;
- they must be trained regularly by the distance education institute they represent. In their consultations they must:

- give objective and explicit information, in particular:
- know the course offers of their institute fully and be able to give precise information about certifying examinations,
- point out to potential participants the possibility of seeking advice from the appropriate labour bureau and from other public educational advisory services available,
- specifically mention the Federal Institute as the bureau which examines and approves courses,
- expressly mention the right to withdraw from the contract.

2.3.4 Representatives who make home visits may not

- sell distance education courses to persons who recognizably do not have the educational prerequisites for them,
- offer courses that have not been approved by the Federal Institute if the interested party have inquired about courses bearing the seal of approval, unless this fact is expressly pointed out and the potential participant confirms in writing that it was pointed out to him.

In the future a potential participant may assume that he is being advised only about courses that have been evaluated with a favourable result, unless he is expressly told that this is not the case, for example when he is offered a course which has not yet been submitted for approval or for which the evaluation is not yet completed. During the consultation this is likely to be the case when courses other than the one originally inquired about are considered. This may well occur in the case of institutes which offer very many courses.

2.4 In summary we list the most important requirements that should be insisted on as regards advertising, information and consultation before conclusion of a contract:

2.4.1 Unambiquous description of the course objective including statement of the prerequisites and the conditions for admission to examinations,

2.4.2 Complete information about the costs and the work load,

2.4.3 The potential participants must choose freely between information and advice in writing or consultation with a representative,

2.4.4 Guaranteed minimum qualification (training and information) of the representatives of distance education institutes who make home visits.

3. EVALUATION OF DISTANCE TEACHING MATERIALS

3.1 In developing criteria for distance teaching materials the BBF was guided by the following suppositions and facts about distance education in the Federal Republic of Germany.

3.1.1 Long before the scientific discussion of educational technology had begun, private distance education was the source of significant impulses for the development of instructional texts. In the USA and Sweden there are even examples of insights developed in distance teaching which then were taken over by the public educational system, such as the principle of individualized instruction. In Sweden the Project IMU (Individualiserad matematikundervisning), a mathematics programme covering three grade levels, was adapted from the course material of a private distance education institute for use in the public school system. In the Federal Republic of Germany, however, private distance teaching and the public school system have developed in strict separation. The findings of advanced educational research and the science of instruction influence distance teaching only with a considerable time lag.

3.1.2 The application of the findings of instruction research to distance teaching is made more difficult by the fact that most private distance teaching institutes employ only part-time authors for the development of their courses. These authors are often eminent authorities on the jobs and job requirements, but they cannot be expected to be acquainted with educational research. For this reason they receive written instructions for authors and take part in authors' seminars. If a course is planned with a view to applying for the seal of approval of the BBF, it would be wise to make authors acquainted with the requirements and criteria of evaluation.

3.2 Requirements for the structure of instructional texts

K.H. LAUTENSCHLÄGER suggested in 1971 a well-founded didactic structure for instructional texts for distance teaching; this has been the basis for the evaluation criteria developed by the BBF.

Structure	Didactical function
Introduction	Introduction, arousal of interest, statement of goal
Presentation of content	Presentation and acquisition of knowledge
Points to remember	Reinforcement of knowledge
Examples and exercises within the presentation of content	Development of ability
Summary	Reinforcement of knowledge
Exercises (Questions)	Development of ability, reinforcement of knowledge and ability, checking own progress
Solutions	Shecking own progr
Test exercises	Checking own progress, testing and grading

3.2.1 Introduction – statement of objectives and orientation to objectives

Course objectives are evaluated on two levels. In the first place, the goal of the entire course must correspond to a vocational activity. This is easy to determine when there are hard and fast curricula

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recognized or prescribed by the state with which these courses can be compared. About 25 % of all distance education courses in the Federal Republic fit into this category. For courses of this kind the relationship between goal and content must then be examined; the content is examined to see if it reflects the current state of scientific knowledge, teaching and job practices, if current regulations and standards have been taken account of and technical terminology used.

The second level of goal evaluation examines the objectives in a more narrow sense. The difficulty and the importance of describing educational objectives well has been discussed in a multitude of publications in recent years. However, MAGER's helpful, if highly simplified presentation of the problem has not yet found acceptance in the directions for authors or, as a consequence, in their work. As a result, very few distance education courses up to now include aims and specific objectives as described for example by MAGER or MÖLLER, in other words the participants are seldom if ever told what behaviour they should be capable of after working through a particular unit. According to GAGNÉ, communication of the behaviour expected after learning is one of the most important teaching activities.

It is known that very few participants in distance education are under 18 years of age. Thus considerations of learning theory on adult learning are even more essential for distance teaching. In his book "Didactic requirements for teaching adults", TONKONOGAJA emphasizes the importance of a clear definition of the goal for a conscious grasp of the problem, and an authors collective which has published "A contribution to adult qualification" also points out the importance of well-defined objectives for adult learning. We agree with MÖLLER that the learning expectations of distance education participants can best be structured by referring to the steps ahead, and that the use of specified objectives on a broad and detailed level can accelerate learning by way of positive reinforcement. The specification of objectives also makes it possible to organize teaching more rationally and purposefully and to select content, means of instruction and teaching strategies accordingly.

The BBF recently analyzed expectations of participants in distance education and came to the following empirically proven conclusions:

a) The objectives of each unit should be formulated in the instructional material.

b) Precise reasons should be given for the objectives.

c) The instruction material should make room for a critical discussion of the matters presented; it should provide the students with scientific language and prepare them to consider problems.

d) The instructional material should include controversial views.

e) In the course of the instruction the teaching material should point out problems and difficulties to an increasing extent without giving definite solutions in every case.

In summary it can be said that despite the existence of extensive educational research on the subject of learning objectives the results of this research have had little influence on privately run distance teaching; this is an important point in which an improvement towards more effective distance teaching is possible.

3.2.2 Presentation of content – acquisition of knowledge

The presentation of content is of central didactic significance. However, in the comparison of distance education courses it may be seen that the modes of presentation vary greatly. To be sure, the didactics of different subject matters such as technical, business or linguistic fields will vary by necessity, so that there can be no best mode of presentation. But often the presentation of content follows the traditional style of test-books and the student is little activated, so that an undesirable passive attitude is encouraged. LAUTENSCHLÄGER distinguishes between mere presentation and mediation; it is his opinion that the author of a text-book for use in the classroom can restrict himself to presentation alone. The author of instructional letters, however, must mediate the content and thus add an active component of learning, that is, as far as possible he must include within the instructional letter all the activities that a teacher will normally use in the classroom to bring across the content of a text-book.

This must be done in consideration of the peculiarity of the content concerned with finding an appropriate mode of presentation. Many methods are available; HANKE presents their algorithms in his "Pedagogical working papers on vocational education":

- analytic-synthetic method
- inductive method
- deductive method
- genetic method
- method of logical development
- method of analogy
- model method
- method of trial and error
- problem method
- systematizing method
- method of recognition and classification.

The basic methods of teaching (forms of action), such as the teacher's lecture or independent study or their synthesis in the class discussion, can be simulated in distance teaching. They must be kept in mind when analyzing the teaching function of the instructional letter. This also goes for the problem of a mode of presentation appropriate to the content and a structure which reflects the phases of learning. GAGNÉ formulates the preparatory and reinforcing teaching functions that should always be included in an author's presentation of content, as follows

- arousing and holding attention
- statement of objectives describing the behaviour expected from the participant after learning
- reactivating and relating to previous knowledge required

- description of stimuli
- guiding the learning process
- feed-back
- preparing and evaluating exercises
- paving the way for transfer
- providing for retention.

FRITSCH has studied the possibilities for media, in particular distance teaching materials, to take over the didactic functions he has analyzed for teaching material in general. His detailed results are especially significant for distance teaching and deserve to be taken into account in the training of authors.

It would also be useful for the improvement of distance teaching material if the authors were better acquainted with the theory and principles of programmed instruction; LAUTENSCHLÄGER's suggestion to develop partially programmed material for distance teaching deserves consideration. The programming would be partial on the one hand in that not all principles of programmed instruction would be fully realized (for example, no frames of small steps but only relatively large units of learning), on the other hand in the alternating use of programmed and non-programmed materials.

3.2.3 Reinforcement of content knowledge

After the presentation of content the structure of distance teaching material described under 3.2 requires elements that contribute to reinforce the knowledge gained, to develop abilities and to remember what has been learned. This includes points to remember, repetition, summaries, examples and exercises. Their didactic function makes them a part of the presentation of content, and they must be examined in evaluating distance education.

The development of instructional letters has by no means regarded these elements in general. For this reason we discuss here briefly the question of how students can be helped to practise and reinforce their knowledge actively.

General didactic theory gives great significance to the case study method. HARKE et al. call this method a possible way "to integrate knowledge and abilities from different areas of study, to apply them to new situations and under new conditions, and to gain new experience through this kind of creative activity, to develop creative abilities further and to learn from success." Case study works against fixation of rigid patterns of thought and routine application of what has once been learned; instead the scientific method of work, thorough preparation and giving reasons for decisions are emphasized.

Distance education offers more favorable circumstances for this kind of study than any form of rigidly organized instruction, since the time required to work through a case may go beyond the length of a class hour; the distance student is not bound to any definite time plan. The examples given by HARKE et al. show that case study is by no means restricted to the fields of social studies or business and economics. On the contrary, it can be used in instruction in technical fields. Case study should be used much more than it is in distance teaching, especially with a view to the aspects of mediation of content which require a more active participation by the student, so that he can reinforce and apply his knowledge and practise transferring newly gained knowledge to other situations.

3.2.4 Checking on and steering the learning process

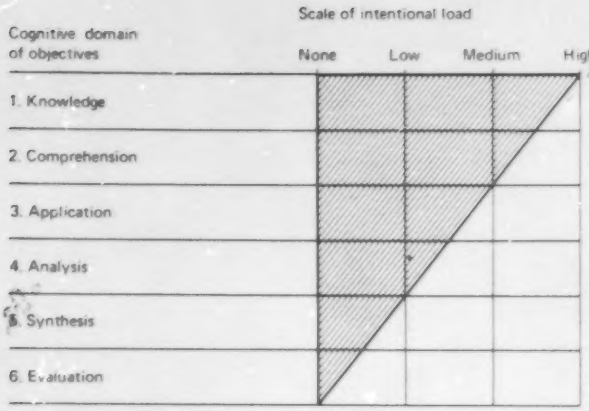
In the analysis of the tests in distance education courses a number of problems become evident. For one thing it is usually not clear whether tests which are sent in and graded are intended to measure the achievement in comparison to a group or a standard. This difference is hidden from the participant, since neither the information before the test nor the comments on the solutions he sends in tell him anything about a relationship to a group standard (for example percentage). The tests are in another regard unable to give information about achievement relative to other participants, since there is usually no mention of conditions for doing the test, such as time limit or use of reference works.

The evaluation of tests should tell participants more both about their individual progress and their comparative position within a defined group. This is particularly important if the participant is planning to take a certifying examination after the course.

Tests which are sent in and corrected are also an important means of intensifying individual study; in pure distance teaching they are the most important basis of communication between the participant and the institute. The evaluations they provide will probably remain questionable to a certain degree, as long as there are no examinations requiring presence during or at the end of the course.

A further problem is that the test questions often do not refer to objectives of learning. Distance education has made little use of the possibilities of measuring achievement on the basis of a taxonomy of objectives with reference to criteria. The student can best be shown his personal achievement progress with the help of tests oriented to objectives which are based on a description of the behaviour expected and which are structured in a rising scale of increasing difficulty. Taxonomies such as those of BLOOM et al., or MEYER or MÖLLER, which have been developed for application, seldom determine the tests in distance education. If we make use of these taxonomies to evaluate the kinds of questions given in tests, it appears that the lower kinds of learning, such as knowledge and comprehension, perhaps application as well, play a great part, whereas analysis, synthesis and evaluation are scarcely called for.

The quality of the test questions could be improved considerably by making use of construction aids such as taxonomies of objectives. If we take the taxonomy of BLOOM (here only at the basic level) to classify the test questions of distance teaching courses we get the following general picture:



Whereas the corrected tests are also important for steering the learning process from outside, the so-called self-tests (checks on progress) are primarily aimed at reinforcing learning. For this aspect the results of a study done by WALTER on "Teaching Strategies and Teaching Effectiveness" have some significance. He compares programmed instruction with traditional instruction and comes to the conclusion that the frequency of reinforcements – in the case of programmed instruction these are notices of correct solutions – is not as important as their systematic and continuous use in the framework of the entire teaching conception. If a student is to be led continuously from one objective to another, the important thing is not so much how often he is reinforced, but that this occurs at the crucial stages.

3.3 The criteria that the BBF uses to evaluate distance teaching material can be summarized as follows:

3.3.1 The criteria described and proved here refer to the evaluation of written instruction material because the written word still dominates private distance education.

3.3.2 The criteria take account of the conditions under which distance education takes place, but at the same time they are oriented to the findings of empirical educational research.

3.3.3 The evaluation criteria are formulated so that they can also be used as construction aids in the development of distance education courses.

3.3.4 The evaluation criteria are themselves constantly being re-evaluated, and thus they are not exclusive or final.

4. EVALUATION OF THE PEDAGOGICAL SUPERVISION

The pedagogical supervision in distance teaching is evaluated from several points of view.

4.1 Pedagogical guidance with the aid of general instructions and instructions specific to the course

Distance teaching is a reciprocal process with two phases, the first of which is the participant's working through the course plans, the instructions for study, and the teaching material itself.

The study instructions play a central role in this process. They are the "objectified teacher" and should have the function of introducing distance education and giving advice in how to work. They should describe the teaching institute once again, and guide, explain, supplement, elucidate, prepare for repetition, motivate and stimulate interest, support self-testing and instruct in the techniques of intellectual work, etc. Some distance education institutes are of the opinion that many of these functions can be taken over by the course material itself; but in many courses the objectified teacher is found nowhere. In other words, the guidance of participants in distance education could be improved, and there is reason to think that recognition of the equal importance of presentation of content and guidance in the methods of work could lead to a higher percentage of successful course completion.

4.2 Supervision by correctors

The second phase of distance teaching begins when the participant sends in his completed tests for correction.

One of the many implications of this second phase is that it disturbs the learning cycle of the participant. He completes a unit of the course and takes the test at a time at which his level of competence for the questions asked should be at the highest. He continues with the next unit of the course while the distance education institute is correcting his test, and he receives the corrected test back at a time when this is no longer the focus of his learning activity, especially in cases which call for repeating the material and the test the participant is likely to be much less willing to do this than at the time he completed the unit tested. An essential criterium for the correcting service of distance education institutes is thus that the correction delays should be as short as possible; by no means should a participant have to wait more than three weeks for the corrected tests after he has sent them in. In addition the quality, extent and status of questions for self-testing are much more important than the lack of attention given them would suggest.

4.3 Consulting services

The participant in distance education can enter into direct communication with a teacher for a short time by telephone. These consultations are particularly important for courses which have no supplementary face-to-face instruction. For this reason some institutes, including some in the Federal Republic, make an effort to offer such direct communication at least some of the time. For example there have been examples of offering participants a special telephone number at certain times. A project in development even aims at taking up telephone contact at the initiative of the institute, both to reduce costs for the participant and to reach participants who do not show enough initiative to call the institute themselves.

4.4 Requirements for achievement evaluation

Tests and achievement evaluations should fulfit the following criteria:

On the basis of the tests given, the distance education institute must issue certificates based on an impartial summary of performance on corrected exercises and tests, as well as on the results of face-to-face instruction if applicable.

As far as possible achievement evaluations should be carried out through objectified procedures. If grades are given, they should correspond to the grades used in the public educational system. Vanity grading is not admissible.

For every participant the distance education institute and the course correctors must register the reports separately; it must be ensured that the course corrector is acquainted with previous reports of the work of the participant.

4.5 Requirements for face-to-face tuition

If a course in distance education includes face-to-face teaching, this too is evaluated. The evaluation considers especially:

- Kind and duration of face-to-face tuition
- Qualification of the teachers
- Adequacy of the rooms, media and other instruction resources
- Planning and coordination with distance teaching.

A study done for the BBF by BOLTE/BÖHME and SCHWIER showed that the motivation and success of participants in distance education are very favourably affected by face-to-face tuition. However, it cannot be concluded that distance teaching should always be supplemented by obligatory face-to-face tuition (social phases), because that would ignore the situation of many participants.

A study carried out in Switzerland, in which distance teaching is given considerable attention, investigated the demand for adult education and its most appropriate forms. The result was that on the one hand 76 % of those interviewed considered a combination of face-to-face and distance teaching to be better than distance teaching exclusively; but on the other hand for 41 % the requirement of some face-to-face tuition would be a reason not to take part in a distance education course supplemented in this way. The study is not representative, but the trend is in agreement with the findings of BERG and KUSTERMANN. There are many reasons for this phenomenon. One is certainly the difficulty which many persons desiring education see in overcoming geographical distances to be present at face-to-face tuition. Another reason is the difficulty which arises for employees working shifts to plan certain times into their schedules. And there is also the phenomenon of an aversion to the group situation involved in face-to-face tuition because the pressure to compare and compete sets off social anxiety.

This shows one of the basic antinomies of distance education:

- If face-to-face tuition is part of distance education, many potential participants are excluded;
- If it is restricted or left out, successful course completion tends to be endangered.

Among the criteria which lead to making use of face-to-face tuition clearly the most important is the social effect of direct communication of the distance students among one another and with the teachers. Further criteria mentioned are:

- technical practice (and oral recitation in language courses)
- preparation for examinations
- introduction to independent study
- guidance
- repeating, supplementing, deepening and elucidating the knowledge acquired in distance study
- objective achievement testing.

4.6 In summary the following criteria can be employed for evaluating the pedagogical supervision in distance education:

4.6.1 Pedagogical supervision makes the essential difference between distance teaching and autodidactic studies.

4.6.2 Pedagogical supervision takes the participant in distance education out of his isolated learning situation.

4.6.3 The qualification of the pedagogical supervisory staff must be qualitatively equal to that of teachers in the public schools, if not necessarily formally identical.

5. THE EVALUATION OF CONDITIONS OF CONTRACTS BETWEEN DISTANCE STUDENTS AND DISTANCE EDUCATION INSTITUTES

All the efforts of the state to regulate private distance education have to be seen from the viewpoint of protecting the participant. The contractual relationships must therefore be scrutinized carefully. This is the only way to protect distance students effectively from being taken advantage of. The regulations of the state authorities require:

5.1 The right to withdraw from the contract within 14 days of receipt of the first delivery of material after concluding the contract. This requirement goes beyond the corresponding provisions of the installment Payments Act, which allows the buyer a right to withdraw within 8 days. The interval called for by our regulations is justified above all by the fact that distance teaching material is not a thing by which simple usage can determine its serviceability. On the contrary, the participant in distance education must be given the opportunity not only to look over the instructional letters or other media, but also to try to work with them. From this point of view the interval of two weeks is actually extremely short.

5.2 It must be possible for the participant to cancel the contract without giving reason on six weeks notice at the most, beginning half a year after conclusion of the contract and quarterly thereafter. Cancellation under these conditions may not be impeded by stipulations requiring compensation, final payments, or other financial obligations.

This regulation was added especially because of the experience of recent years. Several distance teaching institutes concluded contracts, which could not be cancelled by the participant even though the courses lasted several years.

The regulation can be shown not to be unfair, since in the meantime there are a number of distance teaching institutes which offer their participants monthly cancellation if not satisfied, in part because they have confidence in the quality of their courses.

5.3 In the case of courses in distance education which have a definite date of beginning, the intervals of cancellation are reckoned from this date on. In particular this stipulation takes account of those distance education courses which include an obligatory face-to-face tuition and which begin with an introductory seminar at a fixed date. The distance education institutes spend a lot of money on such seminars (engaging teachers, renting rooms, preparing special instructional materials). It would be unfair to make them accept a cancellation of contract shortly before or even during the introductory seminar.

5.4 The sum of the payments required until cancellation must be reasonably related to the entire cost of the course. The conclusion of a contract of a course in distance education should be regarded as a transaction, the object of which is a bundle of things and services belonging together and delivered in parts. As a consequence, the payment should also be rendered in partial payments as delivery occurs.

Therefore only such payment can be considered reasonable which covers the things delivered (instructional letters and other media) and the services rendered (correction and consultation) up to the time at which the cancellation takes effect. In addition the payment must recompense for the administrative costs made necessary after registration.

5.5 The total cost should be reasonable. The relationship of the amount of teaching material (number of letters, numer of pages) to the total cost certainly cannot be the only criterium for a reasonable price. Other important factors are:

- development costs for the teaching materials (authors' fees, ø fees for co-ordinators and for expert job and work analyses, interest on prefinancing)
- cost of the arrangement of the material (use of colour, graphs, etc.)
- costs for the pedagogical supervision of the participants (extent and kind of correcting, consultation services, number of exercises)
- cost of achievement evaluation (administrative expenses)
- cost of information and advertisement
- printing and distribution costs
- costs for supplementary face-to-face tuition when applicable (teachers, rent for rooms, cost of machines and material).

It has to be considered further whether units of the instructional letters are used repeatedly as sub-units in various courses, or whether they have to be developed especially for use with a relatively small target group. Commercial distance education institutes have relatively high advertising costs as they must make use of expensive advertising media (publications with wide circulation). Distance education institutes supported by occupational groups on the other hand can often make use of the publications of their own occupational organization for advertisement, and the institutes belonging to the trade unions have a fairly close network of local union offices which they can use.

Whereas commercial institutes must pay market prices for teachers and rooms, occupational and trade organizations can often draw upon competent members who put their idealism for the sake of better training above their interest in a high fee.

5.6 The conditions of payment must be reasonable; in particular the participant may not be required to provide security or payment in advance by way of an obligatory bank loan or insurance policy or by any other combination contract.

This means, too, that if the participant pays the entire course in advance, he must be offered a discount as in comparable transactions.

Bundle sales must be prohibited because they have often inflicted substantial financial losses on participants. There have been cases in which a distance teaching institute ceased its services but the participant was forced to continue repayment of a bank loan on the basis of a legally independent contract with the bank. Recourse to the institute was unsuccessful because of bankruptcy or settlement proceedings.

5.7 The minimum requirements described here are, however, in the long run not an effective safeguard against fraud, because they must be fulfilled only by those distance education institutes which voluntarily submit their courses to evaluation. For this reason both parliament and administration consider the possibility of a more effective supervision and control of private distance education. Up to now there has been made a draft of a law put forward by a party in the German Parliament (Bundestag). This draft has been referred to committee. Parallel to this a draft of a distance education act is being prepared by the competent ministerial departments. In both initiatives the provisions concerning information and advertisement as well as conditions of contract are extensive.

The suggested regulations are based upon an accrediting procedure, that is, distance teaching courses would generally have to be accredited before they could be offered for sale. Regarding the contract conditions the following additional requirements above and beyond those presently included in the regulations of the state authorities are being considered; the contract would have to include:

- beginning and duration of the distance education course,
- structure of the course,
- obligations of the institute, for example kind of correcting and its frequency,
- educational prerequisites and right of withdrawal;
- the size of the print in the contract would be regulated,
- an obligation of the participant to pay for more than three months in advance is void;
- the interval within which withdrawal is possible does not begin until the distance education institute has expressly called attention to this right in writing and the participant has signed this written statement separately.

5.8 Conclusion

These initiatives show clearly that the participant in distance education needs to be protected more than he has been against the abuse of his desire for education. The regulations of the form of the written contract are intended to make him aware of the significance of his decision and preclude decisions made on the basis of insufficient information. To be sure, at present it is not possible to say to what extent these considerations will take the form of a federal law. The authors are still of the opinion that the first concern of state intervention in distance education should be the quality of the courses as regards goals and content as well as pedagogical supervision; however, it is also necessary to extend the legal control of the conditions of contract to protect participants from fraud and financial loss, in the public interest.

BIBLIOGRAPHY

Allen, R.: Must Home Study be a Stepchild of Education? In: Mackenzie et al.: The Changing World of Correspondence Study. The Pensylvania State University Press, Univertity Park and London, 1971

Bääth, J. & Flinck, R.: Two-way Communication in Correspondence Education. In: Epistolodidaktika, 1972/2, p. 49-64

Berg, R.: Die Fortbildung zum praktischen Betriebswirt durch Fernunterricht, Hamburg: Walter Schultz, 1968

Berufsbildungsgesetz vom 14. August 1969, Bundesgesetzblatt Teil I, p. 1112, Bonn, 1969

Bloom, B. et al.: Taxonomie von Lernzielen im kognitiven Bereich, 3. Auflage, Weinheim: Beltz, 1973

Bolte, K.-M. et al.: Der Einfluss des erganzenden Nahunterrichts auf den Lehrerfolg im Rahmen von Fernlehrgangen, Schriften zur Berufsbildungsforschung, Hannover: Hermann Schroedel Verlag, 1974

Bundesinstitut für Berufsbildungsforschung: Fernlehrerinstitute in der Bundesrepublik Deutschland, Erhebung des BBF, Berlin, 1972

Bundesinstitut für Berufsbildingsforschung: Fernunterricht, Sonderheft 4 der „Mitteilungen des BBF", Berlin, 1973

Bundesinstitut für Berufsbildungsforschung: Richtlinien des BBF für die Überprüfung berufsbildender Fernlehrgange vom 3. Dezember 1974, Berlin, 1974

Childs, G.B.: Problems of Teaching by Correspondence. Report of the Conference on Newer Media in Correspondence Study, University of Texas in Cooperation with the U.S. Department of Health, Education an Welfare, Office of Education, University of Texas, 1962, p. 15-21

Delling, R.M.: Der Einfluss der Methode Rustin auf das Lehrmaterial der SBZ und der DDR. In: Epistolodidaktika 1966/1, p. 18-24

Fritsch, H.: Medien im Hochschulunterricht, Deutsches Institut für Fernstudium an der Universitat Tübingen, Tübingen, 1974

Gagné, R.M.: The Conditions of Learning, 2nd ed. N.Y., 1970

Hanke, H. (Ed.): Padagogische Studientexte zur Berufsbildung, Berlin (Ost): Volk & Wissen, 1972, p. 205

Harke et al.: Beitrage zur Erwachsenenqualifizierung, Berlin (Ost): Volk & Wissen, 1973

Heimann, P. et al.: Unterricht – Planung und Analyse, Hannover, Schroedel, 1965

Karow, W.: Überprüfung und Beurteilung von Fernunterrichtsmedien durch das Bundesinstitut für Berufsbildungforschung. In: Media Methods, Autumn Conference 1973, European Home Study Council, Oslo, 1973

Karow, W.: Zur Bedeutung der Bildungsberatung im Hinblick auf öffentliche Bildungsträger und kommerzielle Bildungsunternehmen. In: Zeitschrift für Berufsbildingsforschung, 1973/3, p. 29-36

Karow, W. & Kreigenfeld, Ch.: The Role of Correspondence Tuition within Multi-Media Learning Systems in Out-Of-School Education, EES/Symposium 56, 6 Strasbourg, 22 May 1973

Kreigenfeld, Ch.: Aspekte der Werbung im Bereich des privaten Fernunterrichtswesens (I & II). In: Zeitschrift für Berufsbildungsforschung, 1973/3/4, p. 33-36 and p.

Kustermann, H.: Der Fernschüler, Weinheim, Berlin, Basel: Beltz 1970

Lautenschlager, K-H.: Der Lehrbrief im Lehr- und Lernprozess des Fernstudium, Berlin (Ost): Volk & Wissen, 1971

Mager, R.F.: Lernziel und programmierter Unterricht, Weinheim: Beltz, 1970

Möller, Ch.: Technik der Lernplanung, 4. neugestaltete Auflage, Weinheim: Beltz, 1973

Peters, O.: Die didaktische Struktur des Fernunterrichts, Weinheim: Beltz, 1973

Schwalbe, H.: Das Thema Fernunterricht in der Meinungsforschung. In: Epistolodidaktika, 1972/2, p. 68-82

Stein, L.S.: Is Home Study a Stepshild? In: Mackenzie et al.: The Changing World of Correspondence Study, The Pennsylvania State University Press, University Park & London, p. 90-103

Skoloverstyrelsen: Förslag om anvandning av IMU-systemet på grundskolans högstadium, Stockholm, 1968

Walter, H.: Lehrstrategie und Lehreffektivitat, München, Basel: Reinhardt 1973

Part 2

Modes of Teaching in Distance Education

Mass Media – Educational Television and Radio

Where we have come from – Where could we go to?

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The paper is the first and the last section of a paper delivered to the British Association for the Advancement of Science in 1974. It is reprinted with permission from the BBC.

The main contributions of educational broadcasting as regards methods are the visual and oral approach, the stress on learning rather than teaching, on group learning and on system learning.

The paper describes a couple of projects developed by the BBC, and imagines for the future the establishment of a sort of network, through which people who want to know or learn are put into contact with people who want to help them know or learn. This requires a loosely-knit federation of interests and organizations indluding broadcasters, publishers, Government departments, trade union and management interests, correspondence colleges and other groups.

INTRODUCTION

When, in say 50 years time, the British Association meets to discuss science and education I wonder what the agenda will be. Assuming the human race survives the various hazards which, presently, surround it, will science and education still command the attention, prestige and money they do now, even in these dog days of economic recession, technology nausea and academic turmoil in schools and universities? I don't pretend to be sure what the answer is. All I get more certain about is the wisdom of scepticism. The world is divided into those who know they are right.

If you dip into the writings of Illich, Freire and Co., you'll get one set of answers regarding education; if you consult Jacques Barzun and the so-called Black Paper writers you'll get another. They all offer their jewels of wisdom embedded in the frequently unspeakable jargon and rhetoric which makes the setting, but I have a suspicion none of them will be right – thank God. All 'Smelly little orthodoxies', as George Orwell would have said. Some chance discovery, some individual inspiration will, as always, make all the difference and the human spirit will take off in some new direction, no doubt convinced it has found an answer or even the answer.

WHERE WE HAVE COME FROM

Who, for example, in the last quarter of the 19th century when people like Marconi and Edison were developing radio and the phonograph and a host of other inventors and scientists were working on primitive forms of television, would have predicted that these two devices 80 years later would need to be considered most seriously by educationists, whether they liked them or not? Or which Greek philosophers, for that matter, would have cared to contemplate how, from the 16th century onwards, the book would revolutionise their beloved oral traditions in education? Despite McLuhan the book is still very much alive and even educational broadcasting has been with us for 50 years this year.

If one turns to the Radio Times of 1924 there are some gems to be picked out by the historians of educational technology. I'll be bold and say that if educational technology wasn't born in that year then it wasn't born at all, but just exists in the mind as a phantasy. Since this is our 50th Anniversary we in the BBC Education departments have been doing a little research and one of our ex-colleagues is writing up part of the story into a book. We think the first authenticated education broadcast was a radio programme specifically aimed at schools, and it took place in Glasgow. 'The Times' of 22nd February 1924 said:

> "Glasgow Education Authority yesterday almost unanimously approved of a scheme for the use of broadcasting in education whereby lectures on such subjects as musical appreciation, Scottish history, science, and French would be transmitted from Glasgow broadcasting station and received on wireless apparatus in schools in the Glasgow area. The first experimental demonstration will take place in Glasgow schools next Tuesday afternoon and will be attended by H.M. Inspectors and prominent educationists".

So you see Scotland again led the way!

The first edition of the Radio Times contained some fan mail:

> "Dear Sirs, Please accept my thanks for the most interesting talks you are giving scholars by wireless. Our half-hours are, I should think, the best of the programmes . . ."

Some of us think this is still true.

School Broadcasting has, of course, since those days grown out of all proportion with very nearly every school equipped to use the many radio and television series provided by the BBC and ITV and with something like 10 million accompanying publications being distributed by the BBC alone each year.

But my remit today is to talk about the broadcast media in relation to continuing adult education. Well that, too, began 50 years ago and as we contemplate the great success of the Open University, it's odd to think that, as far as I understand, nobody really knows who first thought of the fundamental idea behind the university. I've heard an obscure academic in Wisconsin having been given the honour, the date being 1918 – but what is certain is that the Radio Times of 13th June 1924 had the headline "A Broadcasting University". The writer, who says he knows the BBC's Director of Education well, – yes they had one even then and he was an ex-H.M.I. – first talks about school broadcasting and then says:

> "Of even greater importance is the adult student. By means of the alternative service or by using periods now unoccupied, broadcasting can reach people who do not and cannot join a school or college. It can give them lectures and guide their studies – possibly there might be a special wavelength for education, and perhaps a special Radio Academy . . ."

Well, it took 40 years for The Radio Academy to become the Open University with the resultant issuing of degrees but, of course, there was plenty of activity at a more modest academic level between these dates, and without it the Open University would never have been born. Mostly it was on radio but in the 1960's courses for adults on television began and now we have a fully integrated and planned output which, from the BBC alone, is currently offering something like 30 new series in radio and 30 new series in television each year. In other words a broadcasting output roughly equivalent to that of the Open University or to that of school broadcasting. The majority of these series have accompanying publications and the language courses, in particular, have other support materials such as records, slides and tapes.

What distinctive contributions has this vast range of broadcast and printed educational material made? And when I say educational I don't mean educative, if you'll excuse the subtle jargon. Quite rightly, the BBC considers that most of its output is educative in some sense, whether this be in the drama, current affairs or documentary areas. I'm talking here of structured courses and resources which have some clear objective in mind for the viewer or listener, and which are designed to provoke activity following the broadcasts. Well, I believe the contributions have been broadly of two kinds relating to subject content and to method.

But before I look at these two aspects of broadcasting's contribution to education perhaps it would be wise to consider the milieu from which the material has emanated. Because, after all, broadcasting itself is only 50 years old in this country and so we are considering a newish technology not just a new educational technology.

In its simplest terms and, for the moment, leaving aside its distinctive forms, broadcasting is a cheap way of disseminating oral and visual information to a large number of people over a large area. There is no doubt that, compared with other methods, it is the cheapest way of performing this particular task. So here we have one clue as to why broadcasting became a significant medium of communication in education just at the time it did. It could meet a mass demand. A lot of people could listen to the same piece of music simultaneously and for a piffling sum of money – and the same could be said for lectures, dramas, documentary film and other forms relevant to education.

When I spoke at the beginning of my talk about extrapolating into the future I was, amongst other things, wondering whether a mass demand for education, such as exists now, will continue. Perhaps ten years ago one would not have asked the question but now one senses, at least in so-called developed countries, that a certain disillusionment and ennui has set in with respect to both education and science. Nevertheless I think we have to assume that education in some form (and I stress in some form) will continue to be in demand for the foreseeable future. And I believe most people who have thought about this problem at all will concede you can't meet the demand by conventional face-to-face methods.

It is the problem of mass demand wherever you meet it; but with education the difficulties are infinitely greater and more subtle. At some cost to society you can provide everyone who wants a car with a car – it won't be a Rolls but it'll be a car – but can you provide everyone with the education they want? And can you provide it at intervals throughout life – recurrently, when it is needed? This is the central question which makes the issue of learning at a distance such an important one.

I believe that educational broadcasting in general and institutions like the Open University, at the rather elevated and minority higher end of the scale, in particular give us some cause for giving optimistic replies to those questions. But let us make no mistake about it, we are talking of large numbers (masses) otherwise the beneficial economics of the broadcasting situation breaks down. I'm often asked what I regard as a minimum viable audience for a series produced by my department, or in other words what is a 'mass' in my terms. Of course, there is no magic or 'correct' answer to this question but, given the present situation, excluding all subsidising and cutting through a lot of ifs and buts I'm personally uneasy if we design a series of average cost programmes for a potential audience of less than 50,000.

But now I want to return to the two broad categories of subject content and method I referred to earlier as being the distinctive contributions of educational broadcasting. It is impossible in the time available to be exhaustive about either, so I will content myself with simply drawing your attention to a highly subjective personal list under the first heading and concentrate on the second heading which I regard as more important for our present purposes.

S6

Over the past 50 years I should guess that the subjects most materially affected by broadcasting have been music and language, including the teaching of the mother tongue as well as foreign languages. But also high on any list, especially since the coming of television, would be science, mathematics, geography and social history. In a rather different category I would place teacher education, management training, trade union education, parent education and home skills training but I emphasise again this is but a list. To make my point with conviction I would need to lecture to you for several hours on end. Rather let me turn to method and then draw together some thoughts on why educational broadcasting should have had these effects.

A convenient and apposite link between subject and method is provided for me by Raymond Williams in his latest very perceptive book called "Television: Technology & Cultural Form". In a section headed 'Education by Seeing' he remarks:

> "Some of the best educational television, and indeed some of the best general television, has altered some of our concepts of teaching and learning. There is, as we noted, a good deal of transmitted teaching and demonstration. But there are many examples of what can best be called educational practice: the language 'lesson' which is simply half an hour in a foreign town, listening to people speak while we watch them doing things and meeting each other, in a whole social context; the natural history or geography 'lesson' which is in effect a televisual visit to some place where we can see "... as if for ourselves; the presentation of some other way of life, or some work process, or some social condition. These kinds of practice, which television makes possible by its range and scope, are directly related to some of the most encouraging methods within formal education itself, trying to experience a process rather than being taught 'about' it. They do not replace other kinds of education, but they add to them, and in some cases change them qualitatively, in what is clearly an innovating way."

Here are just some of the innovations I believe educational television has exploited. I will content myself with listing them and making a remark or two about each:

The visual and oral approach

The use of picture and sound separately or in juxtaposition; slow and fast visual movement, magnification, etc. Some would regard this as a redressing of the balance against purely literary, print-orientated education; others would say the pendulum has swung too far. The situation is certainly not well understood and, in any case, educational broadcasters have consistently used print media to support their work. The evidence is that the broadcast medium takes secondary role to the print medium and this appears to me undeniable in certain subjects and at higher levels. I will imply later that at sub-degree level there are many instances where the balance between media tips in favour of the broadcast elements.

Learning rather than teaching

Broadcast media are, I suspect, very unsatisfactory devices for teaching. Lecturing, yes, but not teaching. Teaching, to me, implies dialogue between teacher and taught and since the broadcaster cannot rely on dialogue he has to use means to engage, excite, provoke to action. This is, of course, very much in line with a lot of current thinking in pedagogy. For good or evil I think broadcasting has encouraged this move and has, in turn, forced teachers to become better communicators.

Group learning

The distinctive characteristic of most broadcasting is that a signal is sent from a central transmitting station to individual homes. But educational broadcasting has, at all levels and from the earliest times in the 20's, encouraged the group use of broadcasts. The exploitation of a good educational programme with a class of children, or a group of teachers, doctors or trade unionists, or in an Open University study centre is a remarkable phenomenon. The art of conducting such sessions has been effectively described by one of my colleagues Jenny Rogers in a BBC booklet called "Using Broadcasts – a Guide for Tutors of Adult Groups".

System learning

I wish I could think of a different word to use here but I hope you understand what I imply. In simple terms, if one sets out with some definite objective in planning a learning scheme and uses, in ordered sequence, a number of different media and techniques, then one is, in my terms, 'using a system'. Many will object I am grossly simplifying and that, for example, one needs to determine in some pre-defined way whether one has or has not met one's objectives. In other words there are shades here of educational technology and programmed learning. I propose, since I am in a position of some strength, to ignore these objections, partly because I think they encapsulate a good deal of the worst behaviourist cant, partly because they contain some embarrassing unanswered questions in my own mind, but chiefly because they are not relevant to the point I am wishing to make.

The fact is, from the mid-twenties onwards, educational broadcasters set themselves certain aims and, to achieve these aims, used a range of media and techniques in various combinations. When one lists them the weapons in the armoury have been enormously varied as well as large in number. Apart from radio and television themselves there has been radiovision (still very impressive and popular), books, slides, tapes, 8 mm film cassettes, resource packages of various kinds, work cards, discs, correspondence courses.

If one asks why all this happened one asks a very big question. But I think part of the answer undoubtedly lies, as I said earlier, in a consideration of the broadcasting milieu itself. And when social forces, new technologies and institutional frameworks have been cast aside one is, eventually, talking about people. When I changed

from being a teacher to becoming a broadcaster the most startling thing I had to get use to was mixing with a very wide new range of talents — much wider or diverse (not necessarily better) than one gets in a school or university. Broadly speaking, and I apologise for speaking broadly so often, there are three categories of people in a place like the BBC: journalists, artist/entertainers, and teachers. It is this mix of talents which has given educational broadcasting its distinctive nature. If I remind you that we frequently use drama to illuminate social history and social problems, that actresses and actors present programmes on needlework, mathematics and do-it-yourself and that journalists frequently write our scripts you'll begin to know what I mean. In fact I will end this first part of my talk by asking you to phantasize. You know that children's game in which you can, so to speak, permutate in dozens of different ways the third part of the bodies of various characters such as clowns, film stars and football players? Well, in that game, according to your particular tastes, the educational broadcaster comes out as a mixture of — well, I'll leave you to name names.

WHERE COULD WE GO TO?

Let me begin to answer that question by taking just a short step into the future — one year to be precise — and describe for you two big projects we are now planning. They do, I believe, provide examples of the way in which broadcasting could contribute to continuing adult education in the future. I am tempted to say they constitute an an embryo 'Open College' but I refrain, because the word 'Open' will suggest to you the 'Open University' and that excellent institution is not at all the sort of organization I have in mind, although, of course, I would want any provisions to be entirely open. Again, 'College' is quite wrong as are 'School', 'Institute' or 'Academy'. No, my own thought tends to the word network — a "Know-How Network" — and I must emphasize that here I am talking in a private capacity and not giving away some piece of secret BBC policy! Corporation views on its present and future educational commitment are contained in a recent document written by the Director General.

What I think is, in fact, being set up by us and needs to be developed even further by an injection of a modest sum of money and a good deal of enthusiasm in a network through which people who want to know or learn are put into contact with people who want to help them know or learn.

The first of the two projects we are now planning is concerned with adult literacy. It is arguable that broadcasting can make a unique and significant contribution towards solving the problem of adult illiteracy because of its ability to reach people in the privacy of their own homes. What it can do is to provide programmes that encourage the intention to learn, going over the early stages of reading that may have caused difficulty, gradually bringing the adult to the point where he might feel sufficient confidence to seek help from outside. It can publicise these helping agencies and it can assist in the training of helpers.

Estimates vary as to the size of the problem in Britain, but at the very least there appear to be two million adult illiterates in the country. Such people cannot easily be contacted by normal educational agencies, both because they are widely scattered geographically, and also because, by and large, they are likely to be distrustful of the offers of help from any such organization.

In the light of this, the BBC has decided to accept the commitment from 1975 to provide help and support for adult illiterates. This commitment implies the creation of broadcast and print materials and also the willingness to act in conjunction with all appropriate organizations, national and local, statutory and voluntary, in an effort to maximize impact. We have already publicly associated ourselves with the 'Right to Read' campaign recently initiated by the British Association of Settlements, National Institute of Adult Education and others.

The proposal is for a cycle of television programmes for the illiterates themselves extending over three years. On radio there will be programmes for volunteer teachers. Special attention will be given to the provision of suitable support material for the teachers and the listeners. One problem is going to be to devise new types of publications and to find ways of distributing them to those who require them. Another will be to find a programme format which is appropriate. Additionally, it will be necessary to have a referral service. People needing help have to be encouraged to use the telephone in order that they can be put in touch with agencies, statutory and voluntary, which can help them. All in all a pretty big network will be involved.

The second of the two big projects is concerned with Trade Union education in which we already have a good deal of experience through series such as 'Representing the Union' and 'On Union Business'. The Russell Report under the heading "The Broader Education of Workers" says:

> "Trade Union education and training is one of the means by which many people are brought into contact for the first time with organised adult education. Courses in industrial relations stimulate wider interests and there is, therefore, a great opportunity for the adult education agencies to provide 'follow-up' courses for individual Trade Unionists and others. Courses in social studies, communications and similar subjects primarily for trade union groups are a valuable means of bringing industrial workers into contact with the wider world of adult education. We would support any action that further strengthens the links between trade union education and the general provision of adult education."

The BBC undertook exploratory discussions over a year ago with the Trade Union Education Department and other interested parties such as the WEA. The resultant project will be designed for active trade unionists, particularly those with a responsibility for the conduct of trade union affairs, and would have the aim of drawing the

attention of these students in a critically constructive fashion to the policies and activities of their own organization and the implication of those policies and activities.

It is intended to produce and transmit a sequence of television series over a period of three years. In each period of twelve months a new television series will be produced. The broadcasting organization will produce books integrated with the television series and the books will be on sale to the general public. These materials will be part of an integrated project in which the Trade Union Education Department will devise systems of utilization and will also produce its own materials including correspondence courses. The organization of the whole project will be in the hands of a "course team" consisting of representatives of the BBC, the Trade Union Education Department, the Workers' Educational Association, and such other consultants as seem able to make a valuable contribution.

I hope you will agree that these projects and others, which incidentally form only a part of our total provision, are likely to make a new and significant contribution to continuing — or as I prefer — recurrent education.

Perhaps this is the point at which to refer to that excellent OECD document, entitled 'Recurrent Education: A Strategy for Lifelong Learning'. After a careful analysis of the current crisis in education and in adult education in particular and following a section on why 'recurrent' rather than 'continuing' or 'permanent', the report lists what it thinks should be the basic principles of a recurrent education system. Here they are, eight in all:

"a) — the last years of compulsory education should provide a curriculum that gives to each pupil a real choice between further study and work;

b) — after leaving compulsory school, access to postcompulsory education should be guaranteed to the individual at appropriate times over his total lifecycle;

c) — distribution of facilities should be such as to make education as far as possible available to all individuals, wherever and whenever they need it;

d) — work and other social experience should be regarded as a basic element in admission rules and curricular design;

e) — it should be possible and important to pursue any career in an intermittent way, meaning an alternation between study and work;

f) — curricular design and content and teaching methodology should be designed in co-operation with the different interest groups involved (students, teachers, administrators, etc.) and adapted to the interests and motivation of different age and social groups;

g) — degrees and certificates should not be looked upon as an "end result" of an educational career but rather as steps and guides towards a process of lifelong education and lifelong career and personality development;

h) — on completion of compulsory school, each individual should be given a right to periods of educational leave of absence with necessary provisions for job and social security."

The report makes it clear that the mass media have an important part to play in the development of these principles into practice and, again, I hope you agree our present and future plans activate, as it were, most of the principles effectively.

The Russell Report of 1973 — called "Adult Education: A Plan for Development" — also expressed the view that the mass media have an important role to play in a developed adult education service. It said:

> "We are arguing not only for an increase in broadcast time for adult education but for an increase sufficient to make it possible to create what we have called analogues to the Open University at a lower academic level. By this term we mean multi-media systems combining teaching at a distance with face-to-face tuition, some relatively permanent, others transitory or perhaps ephemeral. It is not likely and not necessarily desirable that a permanent institution of a range of institutions like the Open University should be created for adult education below degree level. What is desirable is not a super-organisation but an organisational framework. Within such a framework learning systems could be established involving different media and agencies, despite the logistical and organisational problems known to be associated with this kind of enterprise, despite the difficulties that can arise from matters of contract and copyright and from attempts to combine publicly funded institutions with commercial organisations."

This sounds to me very much like the 'Know-How Network' we have already begun work on. We are, in other words, talking about a loosely-knit federation of interests and organizations including broadcasters, publishers, Government departments, trade union and management interests, correspondence colleges and any other groups who feel they can co-operate to get people on to the appropriate part of the network. We are talking of an amoeba reaching out here, retracting there, constantly flexible, responsive, participatory and changing, not a new block of concrete, a new institution. This, in my view, would not be appropriate to the needs of the time and would certainly make it difficult for educational broadcasters to complement the work of other major providers of adult education in a sensitive way.

One last word. I have not spoken of new and emergent technologies such as cable television, video cassettes and satellites and of new broadcasting opportunities such as the possible allocation of the fourth television channel and a fifth radio channel. Neither have I spoken of the contribution that is and could be made by local radio. But I hope you will have noticed that the whole tenor of this proposal is pragmatic and tentative, which seems to me, quite apart from the

educational arguments outlined above, to be the mood in which we should be approaching the future responsibilities of educational broadcasting. Such an approach is probably the one most likely to succeed at a time of rapid technological change. Much as we like a large institutionalized quantum-jump approach will tend to be a little out quickly out-moded situation, so that as a future British Commissioner speaker on education will be able to say rather smugly in "plus ça change, plus c'est la même chose".

BIBLIOGRAPHY

BBC FURTHER EDUCATION (1974) "BOSET & AFTER". A report on a broadcasting in-service education project for teachers. London, BBC.

CERI (1973) "Recurrent Education: A Strategy for Lifelong Learning". Paris, OECD.

CURRAN, C. (1972) "The BBC and its Educational Commitment". London, BBC.

DES (1973) "Adult Education: A Plan for Development". Russell Report. London, H.M.S.O.

LAURIE, E. (1972) "Learning to Be ...". UNESCO.

ROGERS, E. (1970) "Long Distance ... A Guide for Adult Educators". London, BBC.

WILLIAMS, R. (1974) "Television: Technology and Cultural Form". London, Fontana.

Educational Broadcast: The Search for Priorities

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The paper was delivered to the International Broadcast Institute in Mexico, and is reprinted with permission from the BBC.

The first section of this paper deals with the diagnosis of needs for adult education broadcasting, the use of advisory bodies and field enquiry. We are experiencing a change in emphasis of adult education activity, concentrating on the needs of those suffering from some kind of deprivation and disadvantage.

Adult education projects linked with broadcasting depend upon using an existing support structure, or seeking to create one, and therefore need to take account of the willingness of voluntary organizations to co-operate and participate.

The Open University appeared in Britain as an answer to the injustice and the inefficiency of the current system of admission to higher education. The paper describes the Open University — what it is, how it operates, and who the students are.

Broadcasting has also some role to play in the general field of refresher courses and post-experience courses. But broadcasting time is limited and the problems are frequently those of effective utilization.

The paper terminates with a discussion of educational broadcasting for children.

Satellites, cable television, audio-recording devices, video-recorders, video-discs, computer assisted learning systems etc., etc., pose for us the question of whether this armoury, combined with systems designed by the educational technologist, renders obsolescent the educational broadcast as we know it, coming to the end of its natural life after fifty years.

All broadcasters, or nearly all, regard themselves as educators to a certain degree, even if the education in which they are involved via broadcasting is of a highly informal kind. On the other hand, devoted educationists are sometimes potentially the worst enemies of their own objectives. The trouble with educators is that they have the "angels" on their side and, certainly in some industrial societies, a majority of people turning to broadcasting will go for the World Cup or a Song Festival, rather than a mathematics course.

So, with this reality in mind, the enthusiastic educator must now expect to have his proposals about the use of broadcasting in education and training subjected to analysis against a demanding set of criteria.

I hope now to look at this problem in terms of contemporary British society, using this as an example of a changing industrial society.

A. EVIDENCE OF NEED FOR EDUCATIONAL BROADCASTS

For children at school there is, in theory, no problem — except with some older children about to leave — children who "vote with their feet". Some of them have certainly questioned the norms of society. But for younger children in school, the various bodies representing teacher interests, parent interests, the Ministry of Education, curricula development bodies, etc., formulate and describe the needs of children in school in proposals of a general kind and put these to the broadcasters:

> "We are short of mathematics teachers, can you help?"
>
> – "Provide us with stimulus to creative writing ..."
>
> – "Help our children to understand the transition to work and the opportunities of work ..."
>
> – "Give us material to illustrate human relationships so that we can use it for discussion ..." etc., etc.

and all the time there will be emergent needs as consensus opinion forms —

> "Please provide us with material which will help us solve the problem of children acquiring effective use of their mother tongue"

So, in these areas a well formulated diagnostic system involving teachers, inspectors and educational planners, will provide a policy lead. Moreover, it can help to stimulate effective utilization of what is provided. Additionally, it may actively help to stimulate ideas in teacher training and awareness.

But for adults there may well be conflict.

The educated people in the community can say what it is that they want, and will also offer comment on what others "ought to need". The manager will tell you what his work force needs. Some adult educators will tell you what it is that they provide and how it is effective. But unless there are within the society strong social and economic motivations, a large number of adults may not agree with this diagnosis.

So, the diagnosis of real needs in adult education is difficult and somehow one must balance the advice of those who are in positions of responsibility with what one can discover by field enquiry about the concerns of people in the community and of the trends of their interest.

First, then, the adults.

B. ADULTS: MOTIVATION AND INNOVATION

This section deals with adult education, formal and informal — links with broadcasting and then with the Open University.

B. 1 Adult education (formal and informal)

In Britain, adult education broadcasting and associated publications are provided by both the BBC and the ITV companies. Each organization has its own advisory body which will point out opportunities for educational broadcasting. In practice, both organizations work to a formula for adult education in order to provide a working definition of adult education broadcasting. The formula, with variations, runs roughly as follows:

"Educational television programmes for adults are programmes (other than School broadcasts) arranged in series and planned in consultation with appropriate educational bodies, to help viewers towards a progressive mastery or understanding of some skill or body of knowledge."

In practice, both educational advisory committees and both organizations treat this matter flexibly. The emphasis is put more and more upon the viewer and listener, or student, and it is also increasingly on participation and involvement.

So far so good. What sort of organizations and people represent society within the constraints of advisory machinery in such a way as to keep broadcasters in touch with the demands? The BBC's advisory council at the adult level contains representatives from the Department of Education and Science, the Workers Educational Association, the Universities' Council for Adult Education, the National Institute of Adult Education, the National Federation of Women's Institutes, the National Union of Townswomen's Guilds, etc., etc. There are some 27 bodies represented, and the broadcasting organizations themselves can also appoint extra members as the need arises.

Is this sufficient — are there any other methods of obtaining policy guidance and of demonstrating public accountability? There are the production staff themselves, of course, and if they are doing their job, they should be in touch with society's needs and anxieties. But they themselves may be rather town-orientated. Additionally, there is field enquiry and by this I mean the setting up of a widespread net work of enquiry, finding out the opinions and experience of the "key" people in society (managers, librarians, social workers, etc.) and trying to elicit the opinions of a large number of ordinary people.

The ITV carried out a major enquiry of this sort. This involved a statistical analysis on a sample basis of the adult population. It tended to show that the focus of interest of adults was directed at things which were not demanding academically. They wanted series about the "important" things of life. They were concerned with bringing-up children, the care of the aged, holidays, managing one's finances, marriage, etc.

The BBC Education Division, through its field officers at the adult level, also carried out a somewhat similar enquiry. The evidence produced was much the same as that revealed by ITV, but it tended to show clearly the dichotomy between what the "key" people in society felt others needed and what ordinary people themselves said they were interested in.

People expressed their anxieties and concerns about standards of living, about security for themselves and their families, about human relationships and about consumer interests, etc.

This sort of field advice, considered in relation to general educative purposes of broadcasting, leads to an adult educational output which concentrates on a number of strands and objectives (and output chosen for mixed motives), e.g.

- programmes involving professional updating for teachers, doctors, social workers, etc.;
- programmes for students following vacational courses in colleges of further education;
- programmes enabling people to communicate more effectively both in mother tongue and in other languages);
- programmes helping people to understand themselves and others as individuals;
- programmes leading to an extension of understanding of the wider world;
- programmes concerned with enabling people to improve or acquire practical skills;
- programmes which encourage people to participate in the community;
- programmes which enable people to understand "the world of work".

Now this typical list of strands of programmes or proposals leads eventually to a number of major projects. These projects will each be different in kind in that each of them involves a distinct planning, production and utilization cycle. None of them has any validity if the people for whom they are designed are not reached, either because the communication methods are bad, or because the users are simply not interested.

Each project, then, requires individual planning and I shall say more of this later on.

But equally because each project uses scarce resources, it needs to be measured against a set of criteria, e.g.

> The material, or method of teaching (or learning), should be new and should not be readily available through existing resources;
>
> Does there exist the possibility of effective co-operation with other agencies who will assist the effective utilization of the material?
>
> Does the project have a chance of achieving a reasonably sized participating audience?
>
> Is the project likely to lead to a greater understanding of the community generally, and could it lead to a positive involvement in community activity?

In this connection a lot of work is now being done which is leading to a change in emphasis of adult education activity. Equally, in this connection, it is worth remembering that in Britain, the Russel Report 1973 "Adult Education: A Plan for Development" said

> "It cannot be in the interests of justice or the efficient use of human resources, that numbers of our fellow citizens now find themselves too late at the gate's of wider opportunity and with no further recourse. Educationally we are still two nations and among the educational have-nots the needs are vast."
>
> "But these are not simply the needs of the individual, they are the needs of society too. It is essential for there to be a comprehensive service of adult education in which deficiencies of education opportunity must be remedied so that every individual has the educational resources not only to fulfil himself as a person, but to play his full part in society."

The Russell Report went on to say

> "Broadcasting is already a major component in the total provision of adult education in this country, valuable in several ways. First it is accessible: none of the other agencies with which we are concerned is ever likely to rival the ability of broadcasting to make education available to people who cannot or will not have recourse to it outside the home."

Edgar Faure's UNESCO Report "Learning to be" said:

> "The concept of education limited in time (to school age) and confined in space (to school buildings) must be superseded."
>
> "The processes of instruction and learning should be accelerated where this is in the learner's and the community's joint interest. New techniques for reproducing and communicating educational material which are eminently suited to most envisaged innovations should be introduced at a quicker pace, while technology in general should be regarded as a series of new pedagogic methods and as a means of making educational activity more democratic."

And the Ford Foundation Telecommunications Task Force 1973 said:

> "The goal of education should be to provide access and opportunity to any individual who wants an education for whatever reason the individual may have at whatever time in his or her life. The individual and not the education institution should be at the centre of the learning process – to determine with proper counselling what particular educational mix is best suited to his or her need and stated educational objectives."

So, we should be looking at the question of the needs of the greater part of adult society. Instead of thinking that a very small percentage of the total population are disadvantaged or deprived, it is possible to argue that a very large percentage of adults suffer from some measure of deprivation. Rough headings of areas (even in an industrialized society!) are as follows:

a) disadvantaged in communication
b) disadvantaged in work
c) disadvantaged due to enforced unemployment
d) disadvantaged due to home conditions
e) disadvantaged in the community

On (a) those who are most obviously affected are the one or two million adults in Britain now known to be illiterate or at best semi-literate. In our adult education broadcast production departments we have identified several strata of the overall provision, such as:

> First line provision for illiterate people themselves
>
> Second line provision for the growing number of teachers and helpers and the education of public opinion to be more aware of their problems and the basic problems of parental education in meeting the earliest needs of young children.

Also, clearly impeded in communication are the immigrants. Difficulties in customs, manners, community life and social legislation, all make for problems.

In (b) the main disadvantage appears to occur when someone ready to be promoted is held up or prevented from lack of training and qualifications. This works strongly against industrial and social mobility. There are also the very real problems for people engaged

in repetitive and unrewarding work. So, as far as broadcasting is concerned, there appear to be opportunities for:

- Vocational training programmes aimed at different broad groups of workers – training which should be devised in co-operation with the different bodies engaged in vocational training.
- More general programmes intended to inform workers of the opportunities currently available and for those helping towards greater job potential and to improve indirectly the confidence of workers to use these guidance and counselling services.
- Programmes dealing in some detail with the particular disadvantages imposed on women.

In (c) disadvantage due to enforced unemployment is a problem associated with the shorter working week, problems of redundancy, with earlier retirement and with the whole question of the use of leisure in modern society. The main social groups involved in this area are the longterm unemployed – those who are made redundant during the middle part of their working life and who find it difficult in obtaining more employment. People used to a busy working life and to working wages can easily find themselves bored, feeling useless and socially isolated. Very often they need to have their imagination and attention engaged and their confidence restored.

On (d) – disadvantage due to home conditions – what seems to be needed from society and from broadcasting is practical help for those people in poor homes, rather than sociological discussions of interpersonal problems. People need to have help in dealing with day-to-day problems, with accommodation difficulties, with making money go further, and with the problems in relating to the community itself.

The main audience for such help is particularly difficult to approach through broadcasting. Any broadcasting provision may have to be concerned with the role of social services and social workers providing material to help these people in their work.

On (e) – disadvantage in the community – on the one hand there are the people who seem unaware of the rights to which they are entitled and who always fall foul of the regulations. They seem to be naturally prone to social disaster, whether at the hands of landlords, or of public officials. At a different level of involvement there are those who can cope readily with their own social demands and who, therefore, want to serve their fellow citizens, but who find themselves constantly frustrated by the bureaucracy and procedures of the system.

This, too, seems a fruitful area for the development of informal adult education broadcasting as part of community education.

Some examples of adult education projects linked with broadcasting

In Britain a number of adult education projects linked with broadcasting have been undertaken or are in the planning stage. Of particular interest in this context are:

Trade Union Education: the BBC, after discussions with the Trade Union Education Department and other interested parties has in preparation a major project designed for active trade unionists, particularly those with a responsibility for the conduct of trade union affairs.

The beginnings of language: the intention is to launch a new style of foreign language learning courses, using broadcasting combined with a whole range of other methods, such as books, LP records or cassettes, colour film strips, and tutors' notes. The idea is that the material can be used either at home by the adult or by adults gathered together in classes arranged on a local basis.

Combating Illiterary: the BBC has decided to provide help and support for the adult illiterates, estimated to between one and two millions. This commitment implies the creation of broadcast and print material and also the willingness to act in conjunction with all appropriate organizations.

Old People: it is proposed to design regular television programmes which are intended principally to take account of the needs of older people in the community; such a service must be supported by the availability of a regular flow of information covering the livings referred to in the programmes.

These projects illustrate the potential weakness of broadcasting (radio or television) if used on its own in an adult education situation. Each project depends upon using an existing support structure, or seeking to create one. Material for trade union studies is likely to be useless unless it is reasonably supported by the target audience, and unless there is an infra-structure which will convey information about the objectives and content of the programme and which can stimulate the local situation, not necessarily of a formal classroom type. In the case of the illiteracy project, the initial television programmes can, at best, take adults through the psychological hurdle of rejection and of repeated failure. This objective, in itself praisworthy, is a limited one. If some infra-structure does not exist or is not created, then the adult illiterate can take no further steps through the barrier of uncertainty. Such a utilization structure needs to embrace two parts – not only that which may exist patchily in some local areas and which is part of the existing educational system, but it may need to take account of the willingness of voluntary organizations to co-operate and participate.

There may well be some limitations to the possible effects of national broadcasting in these fields. Indeed, experience in local radio in Britain shows that it is particularly effective in achieving certain types of adult education and particularly in community education. Its success is probably due to the fact that the area of any given problem is optimised – in other words, it is possible for everyone concerned to be in touch, one with another.

B. 2 ADULT EDUCATION (OPEN UNIVERSITY)

Much that I have said so far has dealt with one aspect of adult education. It has been concerned with the question as to what contributions broadcasting at the national and local levels can make to adult education in rather broad terms and to rather large audiences. Broadcasting is, after all, a medium of mass communication and the question of social penetration and size of audience cannot be disregarded in making judgements about priorities.

Many people feel disadvantaged by the fact that their school education was in some ways deficient. Perhaps through no fault of their own it is not until they have left school well behind that they realize that there is now much which they wish they could achieve. Some ambitions are quite modest, for example the acquisition of modest ability at language speaking, referred to earlier in the paper. There is evidence that large numbers of people would like to have the opportunity of achieving a modest attainment with quite conventional subjects such as mathematics, literature, economics.

For these people it might perhaps be desirable to design an adult college or an "open college" which provides a range of courses using modern methods of communication, with the courses each handcarved to the needs of the particular audience. The behavioral characteristics and motivations of adults learning a language are different from those of mothers learning about child care. Management education using broadcast methods will require a different utilization structure to that of experienced teachers being brought up to date about new methods of science teaching. What we are arguing (and it is a personal view) is that what is required is a range of "open college" methods, flexible both in the design of courses and in utilization schemes, rather than a centralized institution called an "Open College".

However, no matter which way this argument develops, there is no doubt that we have seen in Britain what we believe to be a remarkably successful new institution in higher education – namely – the Open University. One of the prime purposes of this new institution is to provide for adults the opportunity of acquiring a degree by a series of methods designed to take account of the ways adults live and work. One of the social objectives is to remedy a major deficiency in society, as a result of which large numbers of adults failed to receive the opportunity when young to go to an institution of higher education, or missed the opportunity of acquiring the basic qualifications to enable them to claim right of entry to a university.

The Open University has been much written about internationally and there is a great deal of information about it in various publications, so I will confine myself to answering three questions in relation to it:

1) What is this new phenomenon?
2) How does it operate?
3) Who are the students and what do we know about them?

1) What is this new phenomenon?

The Open University is a specially created academically autonomous national university. It is designed to enable working adults to pursue courses leading to a first degree, or to follow short-term post-experience courses, mainly in their own time and in their own homes.

It designs its own courses and offers its own degrees. It has its own full-time staff (about 400 academic staff) and its own central campus. At the moment (1974) it has just over 42,000 students and it will shortly be expanding to 50,000 students and beyond.

From the point of view of those it educates as students, it is both a home-study university and a university of the later chance. To take these chances the students have to work enormously hard – at least ten or twelve hours a week to keep pace with a full course, and that over at least 36 weeks of the year.

The adult students study by means of a sophisticated learning system. From their point of view it has four main activities:

a) Systematic reading of correspondence texts and set books
b) Regular hearing and viewing of radio and television programmes
c) Contact with counsellors and tutors by writing, by telephone or at local centres, and during residential summer schools
d) Written assignments

While the Open University is a national university it also has a very extensive regional organisation. In most parts of the country the Open University is not seen as a great academic power house 50 miles north of London, but as a set of offices in, say, Edinburgh or Bristol, surrounded by a network of local study centres in the same region. It is important to remember that most of the Open University students, although spread all over the country, meet full-time staff, part-time staff and their fellow students quite regularly so that the legendary loneliness of the long distance learner can easily become a distortion; for large numbers of students it is far from the truth.

No essential qualifications are needed to apply for the Open University. (The selection is mainly on the basis of "first come first served".) Certain weighting factors are used in relation to occupation, geographical area and a choice of course, so that a crofter in the Shetland Islands wishing to read mathematics has a better chance than a teacher in London wishing to read the social sciences.

The basic fee currently for the Open University courses is £25 tuition and £31 for the summer school fee, plus the cost of the books. But most local education authorities meet some of these costs and many employers help with fees and book costs. Of course the students' fees do not meet the real cost of the university, and these are paid for by the Department of Education and Science. The total cost per year is reckoned to be about £220 per course, per student, and this is about one-fifth of the cost of keeping a student in a residential university.

Why it is what it is?

The original planning committee for the Open University produced some impressive evidence of both the injustice and the inefficiency of the current system of admission to higher education. In Britain only some six or seven per cent of the age-group went on each year to any form of full-time education. This is almost the lowest in Europe and compares badly with North America, the USSR and Japan. In this small percentage there were three times as many young men as young women – a proportion hardly justified by biological evidence about sexes.

The proportion of students from working class homes was no higher than it had been a generation before.

Behind these facts and figures there was a growing challenge throughout the educational scene in Britain to three sacred traditions in higher education:

a) The elitist tradition; based on the view that only a small selected minority can be expected to benefit from higher education, and that to offer it more widely is a prescription for lowering standards and social frustration.

b) The clockwinding tradition; which assumes that education is just an initial power-raiser, winding young people up like a clock spring for ten or fifteen years, then sending them out to go ticking away for the rest of their lives.

c) The prisonhouse tradition; which has always assumed that for any real learning to take place people have to be withdrawn from the workaday world and secluded behind high walls (preferably with sharp spikes!).

2) How does it operate?

The system is set out in some detail in Table 1. The nature of the course components is shown in the first column; the students response in the second column, and the approximate proportion of the students' time in the third.

Concentrating on the broadcasting component, the first point that we need to recognize is that for once in educational broadcasting this component is not in the pace-making position – at least it shouldn't be. It sometimes happens that the planning cannot be co-ordinated, but the best arrangement clearly is when the broadcast programmes are being planned as an integral part of the course design. This means that they will vary in purpose from course to course and from unit to unit within each course.

There is one function of the broadcast programmes that deserves attention. While they are not pace-makers for the course design, the programmes are inevitably a pacer for student progress. Together with the due dates for assignments, the regular transmission of the broadcast programmes serves to keep students working at the pace of the course. We know that between 85 % and 90 % of students are following each programme, and this does not fall off even when the pressures of examination revision comes round.

TABLE 1

Course components	Student response	Approximate time spent
1. Printed material a) Correspondence texts b) Set books c) Recommended reading	Systematic reading	65 %
2. Television and radio a) Course broadcasts in television b) Course broadcasts in radio c) Open Forum broadcasts	Regular viewing and listening	10 %
3. Tuition and counselling a) Individual and group tuition b) Individual and group counselling c) Summer schools	Contact with tutors and counsellors; attending study centres; meeting other students; attending summer schools	15 %
4. Assignments and assessment a) Practical experiments and self-assessment b) Tutor-marked assignments c) Computer-marked assignments d) Examinations	Doing practical work or projects; doing written work; taking examinations	10 %

3) The students and their progress

The university computer tells us that the university now has 41,462 students who have confirmed their registration for undergraduate courses in 1974 and did not withdraw. You can add to that students registered for postexperience courses and graduates continuing their studies.

The Government has just announced (July 1974) that it is going to make funds available to enable there to be an intake of 20,000 students per year in 1975 and again in 1976. Without this concession the number of refusals of application would have been very substantial and would have lead to growing criticism about the "openness" of the university.

What age range do they cover?

Students finally registered for undergraduate courses in the last three years show the following age range:

Birth Dates	1971	1972 (New students, not cumulative)	1973 (New students)
	%	%	%
Post 1945	9.2	19.8	29.4
1936–45	38.6	40.2	40.1
1926–35	31.0	24.7	20.2
1916–25	17.1	12.3	8.0
1906–15	3.3	2.5	1.9
Pre 1906	0.8	0.4	0.4

It is interesting to note the definite trend towards younger applicants after the first year. The average age of students over the first three years is just under thirty. The proportion of women applying in the first year was disappointing at 30 %. Among the applicants for 1974 the proportion of women has increased to 42 % – which should mean something, but who knows what?

What are the main occupations represented?

It is possible to give a fairly detailed analysis of the occupational background of the Open University students from 1971 to 1974. This can be seen in the following table:

		1971		1972		1973		1974	
	UK Pop	Apps	Prov Reg	Apps	Prov Reg	Apps	Prov Reg	Apps	Prov Reg
	%	%	%	%	%	%	%	%	%
Housewives	26	9.2	9.8	11.0	10.8	10.6	12.5	14.6	13.7
Armed Forces	1	1.7	2.0	1.6	1.9	1.8	2.7	2.5	3.3
Administrators & managers	2	6.9	5.6	4.6	4.7	3.5	4.9	3.6	4.1
Education (e.g. teachers)	1	35.9	34.3	30.7	29.9	29.5	29.3	28.3	30.3
Professions & the arts	3	11.9	10.0	12.6	12.5	11.6	10.3	11.6	10.6
Qualified scientists & engineers	1	8.0	9.3	4.4	4.8	3.6	4.3	3.0	3.8
Technical personnel	1	7.5	9.2	11.9	12.1	11.2	14.5	9.8	11.8
Electrical & allied trades	8	1.8	2.3	3.0	3.2	3.0	3.2	3.1	2.8
Farming, mining & other manufacturing	23	2.8	3.1	2.3	2.3	2.2	2.0	2.5	1.9
Communications & transport				1.3	1.3	1.5	1.6	1.5	1.4
Clerical & office work	9	8.2	8.1	9.4	9.7	9.7	8.6	10.5	9.3
Sales & personal service	13	3.4	3.7	4.4	4.2	4.4	4.1	4.3	3.7
Retired & non-employed	42	2.5	2.5	3.1	3.0	3.1	1.8	4.5	2.5
In institutions		0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.5

Apps = Applications
Prov Reg = Provisionally registered

What can be said of these students?

All that needs to be said perhaps is that they must be as committed and hardworking a bunch of students as can be found anywhere. The Vice-Chancellor of the Open University once said of his university that "it is the most difficult way of getting a degree yet devised by the wit of man". However, even if this is an exaggeration it has to be said that the Open University degree method produces people who have not only exhibited the necessary intellectual capacity, they have also "qualities of staying power and determination" which give them a particular hallmark.

In broadcasting terms the Open University consumes a great deal of air-time. The television programmes occupy 30 hours a week on one of the main national television networks, and 30 hours a week on a national VHF radio network. And yet, there is not enough time for the range of programmes which the university would like to transmit.

To some extent the demands which are made on the available air-time must be in competition with other demands. This does not necessarily mean competition with light entertainment, news or drama, but it could mean competition for air-time with programmes of continuing education of the sort which we have already described much earlier in the paper.

The pressures of the debate about priorities will bring into sharp focus the discussion about new methods of distribution and, in particular, cassette techniques. In our view the cable method remains inappropriate for much of what I have been discussing. The economics of it permit it to achieve only about 70 % population penetration. Broadcasts on air can achieve almost 100 % population penetration, given of course the requirement that the individual adult at home has his own television and radio set.

B. 3 Refresher courses and post-experience courses

Adult education, formal and informal, is about people's needs, interests and concerns. Open University education provides material at the higher education level and an opportunity to achieve intellectual satisfaction and personal fulfilment. Both types of provision, which of course overlap, can also incorporate a response to the growing problem in industrial societies of professional obsolescence – the fact that most professional groups find themselves out of touch with current thinking and with modern techniques in a comparatively short span of years.

So the continuous up-dating in terms of skills and knowledge has become a problem, and it is no longer possible for professional groups to hide away behind their mystiques. In some areas such as "Management" the problem is a comparatively easy one to solve. People and firms are prepared to pay real money in order to keep up to date. In the medical profession there is no great problem except for that of general practitioners or isolated doctors in the more remote parts of the community. But the problem applies to a wide range of professional groups – teachers, lecturers, social workers, lawyers, accountants, building construction workers, agriculturalists etc. The actual areas are not particularly difficult to identify, and the professional group concerned can link the education and training needs with man-power planning – although that can provide a good deal more uncertainty than we might expect.

The problems of broadcasting in the general field of refresher courses and post-experience courses are frequently those of effective utilization. A re-educating or re-training project must seem to matter to the people in the industry, and the industry concerned must make positive planning arrangements to make use of the material provided.

Broadcasting has clearly some role to play here, particularly for groups with large numbers. This criterion applies to teachers, and a recent educational change in Britain, involving the raising of the school leaving age, led to an educational broadcasting development which the teachers' unions regarded as the most significant contribution made in that area towards the re-training of teachers. However, training and re-training is continuous. A new wave of people replace the last wave. Broadcasting time is limited. So this does seem to be an area which requires a mixed economy – the use of broadcasts and support material for major ventures involving significant numbers of people, but possibly with the use of audio-visual aids for smaller groups.

C. CHILDREN: YOUNG AND OLD

Perhaps one thinks of educational broadcasting for children as being school broadcasting. But this is a tight constraint. The educational process for children begins well before school – in fact, we can take it that, for better or worse, very substantial learning processess have been undergone well before a child ever gets near a teacher or a classroom.

In the home beginnings of language are certainly there, as are the relationships between children and other children and, of course, between children and adults. So that I think attempts must be made to provide education material well before the formal school level. Many countries have examples of this. In Britain we have certainly developed both TV and radio series each for dual target audiences. Firstly, for young children in play groups, nursery classes, or what are called reception classes and, secondly, (perhaps more importantly) for parents and children watching and listening together at home.

For example, the television series "You and me" has as its objectives:

1. an emphasis on language development;
2. the involvement of parents in children's language development;
3. the use of real life as well as fantasy material (too often pre-school programmes, we think, have too much emphasis on fantasy);
4. establishing the link between home and school (by providing the common focus of interest for parents and children).

But in the secondary schools, and for young adults on day-release at colleges of further education, there are quite different challenges for the broadcaster. The question is what can educational broadcasting do about presenting the challenges of changing society and how do we face the problem that even today a substantial part of our teaching force has followed the closed cycle – from school, to college, to school teaching?

The range of educational broadcasts provided throughout the European broadcasting organizations is enormously wide. But the element with which we might usefully concern ourselves is that part of it which is designed to acquaint children with some of the reality of society. This means creating situations which may lead to the beginning of understanding of political issues, the creation of awareness of social justice, the exposure of questions of morality, an involvement in the community, whether it be the environment (pollution), care of the old, etc.

Mathematics, science, some parts of history – these belong to the traditional curricula area. But schools need to move into those new fields which are of concern to their pupils who as young adults prepare to move out into a complex and confused world. It is a world in which they will have leisure to use, well or ill. It is a world in which they will be courted by the advertiser and assailed by the

mass media. You could also say they will have to begin to learn how to manage complex human relationships with their fellows of the same age and in their and of the opposite sex and with older people in their private lives and in their future jobs. For school broadcasting this represents one of the most challenging and difficult tasks.

There are difficult questions relating to the climate of acceptance of broadcasts and the accompanying material. At the beginning of the paper we spoke of older children "voting with their feet" and being ready to reject the handing out of conventional wisdom. Equally, many adults are concerned about what they consider to be a lowering of general standards and a breaking-up of normal patterns of life. So, in school broadcasting terms, the presentation of a slice of life without comment suggests an absence of standards, but a direct precept sets up resistance. Implying comment through the words or actions of wise and sensible characters walks a tight rope over an abyss of priggishness. So, school broadcasting has quite a job on its hands.

Some areas are, of course, less contentious.

One of the objectives of school broadcasting should be to break down the insularity of thinking. So in Britain the introduction of "European studies" lies partly in an acceptance that the school children of today are the citizens of a society which Britain may have to call upon to have a key role as a European nation and in which multi-lingual communication will be increasingly important. The least able of children may, from educational broadcasting, gain insight and get the flavour of other communities with no formal language learning at all. Such developments of the school curriculum also relate to exchange school visits which may be strongly motivating and may be something to limit the sense of failure amongst some children.

At the other end of the spectrum boys and girls who are going to assume managerial roles in the future international community have need of an education – going back to the primary and middle schools, but most emphatically in their secondary school years, which will allow them to emerge thinking upon international lines. The educational broadcaster must acknowledge the need to help these young adults to become men and women with less of the insularity and fewer of the linguistic shortcoming which already send middle-aged politicians and industrialists flocking to crash courses and to language laboratories.

D. SUMMARY

These then seem to us to be some of the challenges facing those who are engaged in educational broadcasting, whether they be broadcasters, educationists, planners or what have you. Britain faces the possibility of a re-planning of its broadcast resources. It is our view that broadcasting is in a position to make a unique contribution towards education at all levels. Any future allocation of channels and frequencies, or redistribution of national and local facilities, should take account of educational needs – both formal and informal.

Conscientization by Radio in Tanzania

A Mass Approach to Distance Learning

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This paper is based on the evaluation of the Tanzanian education campaign called "Man is Health". It reviews the genesis of the campaign, objectives and organization, examples of the groups at work, preliminary findings and other significant aspects of the total effort.

The campaign made use of radio, newspapers, cheaply printed materials and other media to reach its participants in 75 000 organized study groups. It has shown that radio and other media can be used to raise people's awareness that they themselves have control over many of the common health problems, and that groups of people working together can change many of the least healthy aspects of the village environment.[1]

Tanzania is unique in the third world in terms of the attention and emphasis placed on adult or non-formal education for development purposes. One of the most exciting and promising projects to come out of this atmosphere has been a mass radio study group campaign, "Man is Health" (Mtuni Afya), involving more than two million people.

The aim of the campaign was to make people aware about what they themselves could do to prevent five widespread diseases; malaria, tuberculosis, dysentry, hookworm and bilharzia. The groups listened to radio programmes, read or talked about printed materials and then discussed the more important questions of whether or not anyone in the group had ever suffered from any of the symptoms discussed, whether the group felt the discussion of the disease to be important in their community and, what the members together should do about preventing the disease.

Origin of the idea

The health education campaign did not originate from the health or medical profession in Tanzania, but from adult educators. Nevertheless, the health education unit of the Ministry of Health came in on the campaign at a very early stage, so did the rural development division, TANU (the political party) and the Ministry of National Education. The idea grew out of a combination of experiences beginning with three small scale radio study group projects on political themes which the Institute of Adult Education at University of Dar es Salaam conducted in 1969, 1970 and 1971. During these earlier projects it became clear that this group learning approach was practical, popular and promising.

To this experience on a limited scale, was added some of the thinking which had come from the Brazilian and Chilean experience with literacy as a consciousness raising experience. In the context of health education this meant that people might be able, through discussion, to raise their own levels of consciousness about why they become ill and that they have power themselves to prevent the most common diseases. The assumptions for this to take place are that all the persons in the group are equals in learning, including the group leader. In practice, this means that the group leader is not trained in matters related to the prevention of disease, but only in group discussion methods, matters related to the materials of the campaign and sources for assistance if necessary.

The most significant influence on the campaign came from the policies of TANU and the government. Tanzania's development strategy depends on at least three principles: rural areas are to be given priority in planning decisions as 95 % of the population live there, if development is to benefit the people, the people must participate in the planning of that development; and development is most effective in the long run when carried out by collective not individual efforts. For adult educators the message is clear. Programmes are organized which provide for rural areas, and which at the same time stimulate the participation of people in decisions concerned with their own development.

This still does not answer the question why health education was selected for the campaign. In the first place health education of any kind was difficult to find in many parts of Tanzania. Second, it was learned that the most common diseases in Tanzania were those which could be prevented by group, if not individual, actions, such as building latrines or improving water sources. Thirdly, it was felt that a cycle existed of "Poor Health = Low Work Output = Poor Crops = Poor Nutrition = Poor Health" and that, however oversimplified this notion was, a national campaign of prevention was an important step in breaking it. Lastly, there was concern that

many people were moving to villages for the first time as part of rural collectivization and that this introduced an increased danger of spread of disease. At the same time, the formation of Ujamaa villages could be seen as a unique opportunity for organized health education and action.

Aims and Organization of the Campaign

The campaign had three objectives:

1. To increase participants' awareness of and to encourage group actions on measures which groups and individuals can take to make their lives healthier.
2. To provide information about the symptoms and prevention of specific disease.
3. For those who had participated in the national literacy campaign, to encourage the maintenance of newly acquired reading skills by providing suitable follow-up-materials.

Two elements were fundamental to the fulfilment of these objectives. First, there were pre-existing structures available to implement the plans. Second, the planning was not rushed and it was thoroughly systematic.

Tanzania has built a widespread adult education network under the administration of the Ministry of National Education. It is composed of nearly 2000 national, regional, district and divisional adult education coordinators and supervisors. These personnel are responsible to the thousands of adult education centres which operate using primary schools as bases. They are paralleled by a network of health education officers. Both sets of personnel were largely responsible for the day to day operation of the campaign, from the training of group leaders to encouragement during the broadcasting. They were supplemented by the networks of TANU and the Rural Development Division.

The planning for the campaign began 18 months before the first radio broadcast went on the air and was carried out under the guidance of a national coordinating committee which met as often as weekly during the more intense planning periods. The importance of this committee is that from the beginning as many agencies as were necessary to the success of the campaign were involved. A mass campaign at a rural level cannot be carried out by the activities of only one sector or one agency. It requires the coordinated efforts of all agencies working in the rural areas. At village level in this campaign, the adult education presonnel worked with the rural development extension officers, the local TANU officials and the health education personnel in organizing groups before the campaign and in giving the groups support, once the radio programmes were under way.

The Staged Training System

Experience from the earlier radio study group campaigns indicated that a trained study group leader was essential to successful group activity. One of the most important reasons for training group leaders is to convey the message that group leaders are <u>not</u> teachers. A leader does not tell the group what to do or how to do it. The group leader is given training to guide group studies, to understand that he is only 'first among equals'. He must be trained in tact: to encourage the withdrawn, subdue the over-dominant and generally stimulate full participation. It is equally important to provide suggestions to leaders on how to move from discussion to action in the groups.

Logistically, the Tanzanian scheme required 75 000 study group leaders at divisional level. There were seven regional seminars for 200 participants; (30 per seminar) 61 district level seminars for 1400 participants (25 per seminar) and 2000 divisional seminars for roughly 75 000 study groups leaders, (37 per seminar). All the seminars lasted from two to three days.

An important lesson from this experience at mass training is that it is possible to ensure that the central elements of the training message survive the diffusion process from the first through the last stages. That is, no vital element need be damaged by dilution. This is one of the most crucial aspects in the development of a mass campaign. In the Tanzanian case, the key elements of the training message were maintained by several devices: centrally prepared handouts (duplicated locally); the use of prepared flip-over charts summarizing the most important points of training; pre-recorded cassettes of simulated radio programmes for role-playing experience; and copies of the actual materials to be used in the campaign.

The groups in action

The pattern which was most often followed by groups during the campaign was as follows:

1. Assemble during the gathering time – the radio plays music related to the campaign, political songs, poems and short announcements;
2. The group members listen to the 20-minute radio programme;
3. The group leader or someone in the group who can, reads aloud the appropriate section of the text;
4. Discussion begins first with the question of the relevance of the material presented to the actual circumstances of the group's members;
5. Discussion takes place about various persons' experience with the disease, alternative causes of the disease and possible ways of preventing it;
6. Resolutions are made and agreed upon by the group for specific actions which could be implemented in the village;
7. During the ensuing week – before the next programme – the resolutions are carried out by the group members and, most likely, others in the village.

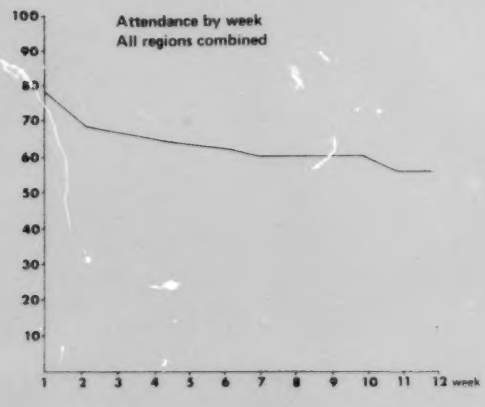
A major difference between this campaign and previous attempts was the importance placed on action following discussions. The

types of activities which individual groups undertook varied according to the reality in various areas. In a survey of 213 groups, it was found that clearing vegetation from around the homes was carried out by 28 per cent of the groups, digging, repairing or rebuilding latrines by 20 per cent, destroying areas of stagnant water by 24 per cent,, boiling water by 12 per cent and cleaning the area around water supplies by 11 per cent. In one district, (Dodoma) about 200 000 latrines were built during the campaign period. The result at the end of the campaign was that not a single house was without a latrine. This happened in an area where colonial officers had tried to enforce latrine construction nearly 50 years previously with dismal results and much rancour. In one division in Iringa the people decided that having a latrine for each home was not enough. What, for example, could travellers use, while waiting on the side of the road for buses. The solution was obviously more latrines. It was agreed accordingly that one latrine would be built at each major bus stop-in the area.

Attendance

The national average attendance figure for the campaign was 63 per cent. That is, at any given session anywhere during the campaign, some 64 per cent of those enrolled were probably in attendance. This figure can only be meaningful when compared with the average attendance of other forms of rural adult education such as literacy or political education classes. The Ministry of National Education estimates that actual attendance at any given session for the nearly three million persons enrolled in adult education classes is about 33 per cent. The literacy project estimated between 25-40 per cent attendances per session. This means that the attendance figures for the short term campaign were quite satisfactory.

The graph indicates the attendance pattern week by week. Several points are made. First it can be seen that even for the first meeting over 20 per cent of those enrolled failed to show up. If the attendance figures were adjusted to exclude those who enrolled but never actually attended a session, the average attendance would rise to almost 83 per cent. The second point that could be made is that attendance during the main part of the campaign was quite steady. The change from the second through the tenth week was about 5 percentage points.



Evaluation of the Campaign

Built into the campaign from the beginning were a series of measurements and sources of information designed to aid in an assessment of some aspects of the campaign. In addition to such routine interest as total enrolment, national distribution of groups and attendance rates, the evaluation design provided for the measurement of the amount of information gained through this method of study and a measurement of the change in observable household health practices as a result of the campaign.

As we start to examine the data from the control groups, we begin to run into some difficulties. Perhaps the foremost difficulty in selecting a control group during a campaign of this type is: How to find a group of people in an intensive campaign designed to mobilize everyone who has not taken part in the campaign in some way? In Mafia for example no control groups were chosen because it was said that in a national campaign of this sort all people had a right to participate in the health education. In Mtwara the situation was similarly difficult as those in the control group were swept into the excitement of the campaign along with the other adult education students and began to study the material on their own. The result in this case was that the "control" group actually scored higher than the Mtu ni Afya groups.

Nevertheless the Mtu ni Afya groups showed a relative improvement of 47 per cent from the pre-test to the post-test, an increase from 43 per cent to 63 per cent. The control groups taken together secored a 35 per cent relative gain from 43 per cent to 58 per cent. The Mtu ni Afya groups scored higher than the control groups, but this difference was not found to be statistically significant. Only when the scores from the energetic Mtwara "control" group are removed are the differences significant statistically. If the control group in Mtwara is excluded, the remaining control groups show an improvement of 21 per cent compared with the 47 per cent of all others. This difference is statistically significant as well.

Thus we can say that there is a difference between the scores of all control groups and all Mtu ni Afya groups, but that this difference, the better scores of the Mtu ni Afya groups, must be seen as a tendency only, not as a significant difference. However, if one excludes the group in Mtwara which actually participated in the campaign, the 47 per cent relative gain of the Mtu ni Afya groups is fully 26 per cent higher than the 21 per cent of the control groups. In this case the difference can be shown statistically not to be due to chance.

Changes in Health Practices

Of particular importance to the campaign was the measurement of change in health practices. In a survey done of eight villages before and after the campaign a series of 11 observable health practices such as the presence of a latrine, the use of the latrine, absence of broken pots and pools of stagnant water combined as a health.

practices "index". Each household was surveyed and could score between 0 and 12 depending on the number of positive practices observed. Before the campaign the mean health practices index for all houses in the eight villages (2084) was 3.0 or three out of eleven positive observed health practices. After the campaign the mean index was 4.8, a relative increase of 60 per cent. In real terms this means that each house in the entire sample improved their health environment by changing nearly two negative habits into positive ones. The largest change in these scores come from the digging and construction of pit latrines and clearing vegetation from the immediate vicinity of the house.

The final evaluation of any health education campaign must lie in the reduction of the incidence of disease. Provision of the measurement of the reduction of disease level was not provided in the evaluation of this campaign, as the isolation of the multiple factors associated with good health would have proved impossible given the nature of the campaign and the records available. There have been reports of a large increase in the number of people attending rural dispensaries in many areas. There is proof that large numbers of people participated in the campaign: that people learned from this method and that literally millions of hours were put into environmental changes as a result of the capaign.

Finance

The campaign was supported by capital grant from the Swedish International Development Authority of 210 000 US dollars.[2] Of this capital training accounted for roughly 36 per cent, printing of study materials 50 per cent, distribution another six per cent and radio production and research the remaining eight per cent. The actual production of the radio programme cost less than 600 dollars additional capital. This is because production of the radio programmes made use of the already existing broadcast and radio facilities at Radio Tanzania and of the services of Health education and adult education broadcasters whose work was covered in salaries already being paid by their respective institutions.[3] What this means is that the campaign was able to reach participants at an additional cost of roughly US $ 0.10 per enrolee.[4]

Significant aspects of the campaign

It seems clear that the Tanzanian large scale conscientization campaign in health education is one of the most interesting education projects to have taken place in Africa in recent years. Some of the most significant aspects and reasons why the campaign deserves very close study by those concerned with development, particularly rural development, are:

1. An atmosphere has been created in which people have been able to take some control of their own health. It has been all too common for people in rural areas to see illness as being related to factors outside their control, or as caused by sociological difficulties in the community with both present and past inhabitants. Where the possibility of help has been recognized, it is seen too much in terms of modern medicine – the provision of which is hopelessly inadequate in rural Tanzania. This campaign has shown that radio and other media can be used to raise people's awareness that they themselves have control over many of the common health problems and that groups of people working together can change many of the least healthy aspects of the village environment.

2. Large numbers of the rural population have been given access to specific and relevant information.

   The rural population makes up the bulk of all people living in Tanzania, as well as in most third world nations. This campaign has shown itself to be very effective in reaching a very large portion of the rural population which has in the past not had access to more formal types of education because of high costs, shortsightedness in planning or simply different priorities.

3. The methods offer a realistic alternative to much criticized 'traditional' student-teacher relationships.

   The shortcomings of traditional student-teacher relationships have been criticized frequently by people such as Ivan Illich and Paulo Freire. It is clear that an educational setting for adults who are to direct their own development cannot rely on methods whereby one person is seen as an 'expert' or teacher and possesses all knowledge and others simply as recipients of knowledge. The emphasis in this approach is on complete and equal participation by the group members: They actively explore the relevance of the information to the reality of their own lives. This joint exploration creates lively understanding of a personal situation for each one involved and becomes a strong motivating element for imporving community life.

4. Costs per participant are low.

   The campaign by making use of network of already existing extension officers and primary schools in combination with the use of radio programmes and mass produced printed materials was able to operate for about US $ 0.10 per group member. This is an example of the radical savings which can be obtained through a careful orchestration of mass media, mass organization and small groups. With smaller numbers of participants the costs are higher but still attractive. The campaign in 1971 which reached about 20 000 participants cost US $ 0.56 per person.

5. Grass-roots political structures were strengthened. The campaign was a cooperative effort by several ministries and the political party, TANU. In areas such as Dodoma or Mtwara where the campaign was very enthusiastically received, the study group leaders were often the ten house cell leaders of the party. The effect of this was to provide an opportunity for the ten house cell units to have the kind of participation on local decision making which Tanzania is depending on: people's participation in their own development. Development <u>with</u> the people not <u>for</u> the people.

6. The mobilization of large numbers of people necessitates an extensive administrative and communication network. The lesson

of this campaign, however, is that it is possible to use already existing structures, such as agricultural or community development extension system, providing these personnel are given some training in the new methods.

7. A centrally planned campaign has some dangers.

   There are always dangers in a centrally planned campaign that the educational content will be seen by both the planners and the people themselves as something which is not to be questioned, merely acted upon. There are many examples of health and family planning campaigns which merely pump the message into the heads of the people and expect results. Experience from the 'Man is Health' campaign indicates that the number of campaigns which can be effectively done on a national level may be limited. The information which is presented needs to be of such universal concern to those taking part so as to stimulate their own analysis and thereby act in manners appropriate to specific local situations. There may not be many subjects which can be universally applicable. There is no reason why these same approaches could not be used at a regional or even smaller level.

8. An effective mass campaign in rural areas needs the coordinated efforts of all the agencies and ministries concerned.

   Without the coordinated effort of rural development officers, health education officers, adult education officers and some voluntary agencies the results of this campaign would have been much less possible.

   Good health depends on more than the attention of the health officers. It means consciousness raising, assistance with construction skills, and even increased community production in order to have the necessary cash to buy such items as window netting or malaria tablets. Effective rural development of any kind needs a frontal approach rather than a single sector approach.

   As the study of the campaign continues it is hoped that the more detailed examination of factors contributing to the success of the campaign can be isolated. It is also hoped that some of the most important factors in planning similar campaigns can be indicated. Clearly this type of development effort has potential.

Multimedia Systems in Adult Education

Two Internordic Projects – Some Experiences

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Two internordic multimedia projects of distance education are described. In both projects the target group is primarily people with a modest educational background. The organization model and the use of media are very similar. One of the projects has been a success, the other has not.

The author points out that the use of group work was considered essential in both projects. The group activity was very attractive in one of the projects, but had no appeal in the other. The paper concludes that although it is possible to develop multimedia systems which are very effective, the structure of such systems is not a general one. It is necessary to plan multimedia projects carefully, taking into consideration the particular situation of each project.

In spite of an obvious educational value of the modern technical media, it still seems to be difficult to find a proper place for them in an educational system.

To a certain degree they are used as supplements to traditional classroom education, which in this case raises special problems.

Another way is to build up educational systems where the different media are integrated and their role adapted to their potential purpose. A practical example of this is The Open University, which proves the possibility of developing a "distance education system" at university level, working according to the theoretical intentions.

Below are described two examples of distance education systems developed for other target groups. The results, compared with each other, are completely different. The two projects are named START and NOVU. Both of them have been running in four nordic countries, with slightly different patterns.

THE START PROJECT

The target group in START is primarily people with a modest educational background, particularly in English (6 – 7 years of primary school). The objective is to give enough command to understand and speak everyday English.

The description below is based on the Norwegian version of the project.

Administrative model

At a very early stage a project group was established with representatives from two cooperating correspondence schools, from the national broadcasting company, and from the educational organisations. (These organisations, 26 of them, are all concerned with adult education of different kind.)

This project group has been in charge of the Norwegian START project as a whole, providing the course material, teacher training, information, distribution, and marketing.

START has been a valuable ecperience in proving the possibility as well as the necessity, of cooperation between different institutions with their particular experiences and resources. Lack of cooperation has been the cause of failure in too many projects of this kind.

Course elements

The duration of the course is 3 years (6 terms.)

The basic teaching material is the printed text (Correspondence material) and 1 weekly radio programmes. The radio programmes are all recorded and available on tape or cassettes for a reasonable price.

TV programmes are not supposed to be a teaching element, but to have a stimulating and encouraging effect. Correspondence assignments are offered particularly for individual students.

Group work

For this particular target group, probably not very motivated for further studies the course is based on group work, informal meetings, often in private homes, and with an amateur as a group leader. The group leader is supposed to have some knowledge of English. The group work is an important point in this project.

Training programme for group leaders

More than 2000 group leaders were trained through special training programmes at week-end courses during springtime 1973. Special manuals for group leaders were worked out.

Information

A very intensive information programme, including radio and TV programmes, advertising, distribution of brochures and contact meetings was carried out during a 6 month period before the course started. More than 900 000 copies of brochures were distributed.

Results

For START 1 (the first 6 month term), more than 70 000 copies of the text-book were sold and approximately 20 000 persons participated in more than 2 500 registerated START groups.

The next text-book, START 2, was sold in about 45 000 copies. The number of group members seemed to be rather constant.

The drop out of individual students (those 45 000 buyers who were not registrerated in groups) has been approximately 50 %. It is supposed that a great proportion of those drops outs has been "impulse buyers" with no firm intention of completing the course.

START 3 has been bought by approximately 41 000 people. Some drop out has been reported in the groups, but the drop outs have mainly taken place among the individual students. Among the group students we can conclude that the drop out druing three terms (1 1/2 years) has been very modest, probably less than 10 %, which is a very satisfactory result in adult education.

Some statistical data might be of interest (N = 790)

1. Proportion female/male:

Female	Male
81.7 %	17.6 %

2. Age groups:

- 15	16 - 20	21 - 30	31 - 40	51 - 60	61 - 70	71 -
1.5 %	0.8 %	12.6 %	27.8 %	23.9 %	7.7 %	1.3 %

3. Educational background:

Primary school only (6 - 7 years):	32 %
Primary school + 1 year general education:	37,8 %
Primary school + vocational education:	33 %

4. Geographical distribution:

Cities	Densely populated areas	Rural areas
24 %	21,4 %	43,4 %

5. Reasons for participation:

Travelling abroad	Better understanding of radio and TV programmes	Follow up the children
14.6	37.4 %	20.9 %
Contact with foreigners	**For professional use**	**Leisure activity**
25.7 %	25.7 %	45.9 %

6. Previous participation in adult education:

Yes	No
22.6 %	55.1 %

7. Information channels:

Newspapers	Friends/ relatives	Radio	TV	Brochures	Other
24.2 %	14.6 %	37.7 %	56.4 %	13.9 %	5.7 %

The major part of the participants are women with a very modest school background. A large proportion are situated in places with small opportunities for education, and more than 50 % are of age above 40. Most of them have never before taken part in adult education activities.

With the START-courses we have succeeded very well in getting contact with the group, we intended to reach. For these groups radio and TV are superior to all other media for recording participants.

START in other nordic countries

The START course was originally produced in Sweden. Sweden, Finland and Norway have in all essentials used the same model and with very much the same experiences. Sweden is one year ahead of the other countries and reports a sale of 110 000 copies of START 1 and 70 000 of START 5, which is a remarkable result after 2 1/2 year duration.

Denmark has chosen another model. Not cooperating with the educational organisations and not emphasizing local group activity, the course has been based only on radio/TV transmissions and on the text-book. The response has been very modest, the text-book START 1 has been sold in less than 4000 copies.

Further analysis could give interesting conclusions.

THE NOVU PROJECT

The NOVU project is an internordic project, initiated by the Council of Europe. The project has two goals:

1. to test a model for planning of adult education, based on educational technology.
2. to raise problems concerning the generation gap, to stimulate discussions on this theme in study groups, and to change attitudes concerning this problem. Before the choice of subject, an extensive survey was carried out in Denmark, Sweden, and Norway.

The administrative model and the use of media in NOVU seemed in all important aspects, and on its own terms, to be similar to that of START. The media are radio and TV transmissions, correspondence courses, a supplementary text-book, a film strip, and group activity. Special training for group leaders is provided. Marketing has followed the same lines as in the START project, except for one thing: the school authorities have been an object of special attention.

Results

Altogether 5000 sets of correspondence material and text-books were sold and 50 study groups were registerated in Norway.

In Denmark and Finland the result were even more modest. For Sweden it is too early to register any results.

Without making any extensive analysis of the reasons for this, it is obvious that the subject has had almost no appeal as a group work theme. As to this objective, the project has been a failure. For those who have attended the course, or looked at or listened to programmes, reports are very positive. But we have not succeeded in getting the target group engaged in group activity or regular study.

CONCLUSIONS

Two internordic distance educational systems, very similar as to target group, organization, and use of media, have been described. In one of them, the system has worked well, in the other not.

An important (and very expensive) experience has been made: it is possible to develop multimedia systems which are very effective distance educational systems. But the structure of the systems is not a general one. It has to be developed for each particular project, taking into consideration subject, level, target groups, traditions, attitudes and economic resources.

The Role of the Written Word in Distance Education

A Study from the Learner's Point of View

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Distance education makes the learner learn through the medium of the written word and other technical devices. This paper analyses the relevance of the written word in the growing complex of instructional media.

The written word plays a multi-faceted role in distance education from the pre-admission period till the learner has completed his course. However, it is the written word in context of the instructional material, student assignment and the feedback instructional material that ultimately counts.

Almost every student feels uncomfortable when confronted with the written instructional material. His inability to comprehend through reading affects his completion behaviour. The use of technical devices is advocated because somewhere along the line the written word fails.

Although the learner's understanding of the material is of primary value, nevertheless, learning is incomplete without the learner's ability to express what he knows. To advocate the use of multiple-choice questions is to reduce the dimensions of distance education.

The process of learning through distance education is completed when the learner's response is corrected by the instructor and returned to him. The correction of a learner's response is more than a mechanical process, and this remedial teaching is possible through the written word alone.

The question whether or not the written word is irreplaceable depends not so much upon the availability of technical devices as upon how much time the learner will devote to reading. Technical devices can act as stimuli, but the mode of distance education will thrive on the learner's acceptance of and adjustment to the written medium.

With the shift in emphasis from "who ought to be educated" to "who is capable of being educated" the sphere of education has grown wider. That communication between the teacher and the learner can be facilitated by print, electronic, mechanical and other devices besides the usual face-to-face contact is well understood and accepted. The success of any educational medium does not necessarily depend upon the number of hours the teacher and the learner spend together. Distance education is the term used for that mode of education which uses the written or the printed word and other technical devices as its instructional media. In discussing this special mode of education it is the relevance and the utmost suitability of the various media that we are thinking about. In accepting the growing utility of technical devices in distance education,, do we have to lessen our reliance upon the written word? In the face of increasing instructional multimedia, should we minimize the role of the written word in distance education? Would this enrich or impoverish it? Finally, in the modern context, is the written word irreplaceable or has it become out of date? These are some of the issues that this paper endeavours to analyse.

THE WRITTEN WORD

The written word forms the basis of all correspondence education and it is in correspondence education that the roots of distance education lie. The written word has varied roles in distance education. It is significant for information presentation, student activity, student motivation, course production and assignment assessment. From the pre-admission period till the learner has passed out his course, the written word is used consistently. It is the instructional material, the learner's assignment and the feedback in the form of the instructor's written comments that finally count. Until lately

it was the written medium through which the process of instruction, response and feedback took place. It is through these processes that the role of the written word will be analysed.

THE WRITTEN WORD IN THE INSTRUCTIONAL MATERIAL

The written word is meant to be read just as the spoken word is meant to be heard. The written media make almost every student uncomfortable at the outset. He is normally accustomed to being taught by a teacher who is physically present. Distance education employs the strategy of independent or autonomous learning. When the learner fails to comprehend the instructional material fully through the written word, the fact that he becomes disinterested and listless is natural. This disinterestedness results in his toying with his assignment. He then either leaves the answer sheet blank or simply scrawls across the sheet that he has been unable to understand the instructional material. It is often followed by a request to the teacher to write the answers to all those questions he has failed to answer himself. The adequacy or the inadequacy of the written word, therefore, affects the completion behaviour of the learner. Because the written word fails somewhere along the line the use of other technical devices is advocated.

WHY DOES THE WRITTEN WORD FAIL?

The failure of the instructional material to reach the learner affects his completion behaviour. Unless the learner fully responds to what he is being taught the purpose of education fails: for all educational media necessarily involve a two way communication. There are many reasons for the failure of the written word:

- Learners studying through a distance education unit have varied cultural, social and educational backgrounds. The average instructional material cannot be expected to cater to every one's taste. A learner who gave up his studies long ago may find a lesson in economics, for instance, quite incomprehensible; while a person fresh from school may not find it so. Similarly, in learning a second language, the different backgrounds pose a significant problem. In India, where a number of languages and dialects are spoken, teaching a foreign language, English for instance, becomes difficult when confined to the written word alone.
- The written word requires a special training of the mind. It employs a strategy of regression to read and reread which can be tiresome. Not that listening does not require a special training of the mind either. But almost everyone is used to learning through the spoken word from childhood. The written word, then, tends to leave an extra strain upon the mind. A person may read a written lesson thrice and yet fail to comprehend much. In a classroom situation he can at least ask his teacher to clarify a certain point or turn to his classmates for help.
- Listening may require a specific faculty of the mind to grasp quickly and retain what is said. It does not, however, imply a low or high rate of listening. Reading, on the other hand, involves a special skill. A low rate of reading and understanding coupled with a lack of intellectual analysis hinders a student from reading the instructional material in the required time and subsequently sitting down to complete his assignment.
- If the learner has the patience and the desire to read and reread the instructional material, time often poses a very crucial problem. Students involved in studying through a distance education unit are mainly in service. They may not find enough time to read the material properly, however willing they might be. More than fifty percent of the learners explain their inability to complete their assignment in terms of their finding no or very little time.
- If the student has a weak vocabulary and the instructional material uses high powered words, the message in the lesson fails to go home. It happens more often in a language lesson. For instance if we are teaching English as a second language at college level, at least a certain standard is taken for granted in the learner who is studying for a degree. It has been observed that someone who is in service, although he gave up his studies long ago, is more given to reading and understanding the written word in a short time than someone who is coming fresh from school. The instructional material then, becomes obscure for the learner who does not have a developed vocabulary.
- The written word is often more out of context than the spoken word. In a class room, teaching material can be built round a situation. The written word in distance education has its limitations of space. We have to depend more upon the learner's imagination. That is why we introduce diagrams etc, to help the student:s imagination take off. In language teaching specially, the context is very valuable. Much can be done to remove this shortcoming.

These are some of the draw backs of the written word. They affect the response of the learner.

THE WRITTEN WORD AND THE LEARNER'S ASSIGNMENT

The process of the learner reproducing or answering questions on what he has comprehended depends upon how well he has read and understood the written word. The question that faces us at this stage is about the student's inability to complete his assignment. If the learner fails to understand the material sent to him, he will obviously not complete his assignment. However, students often complain of their own inadequacy to formulate an answer. Here the written word takes a wider dimension. It is the written word of the learner that we are talking about. If the learner has understood what he has been taught, then whether he formulates his answer or whether he ticks off the right answer from multiple choice, are two separate issues.

It is alright to say that a worker must learn to recognize signals and act according to the instructions. He does not have to express knowledge. But this is applicable to a very confined course of study. For professional skill training this might be perfect. But is that the only skill that we are developing in our learner? What happens at the college level, for instance?

When we are teaching at the school or college level, it is expected of the learner that he learns not only to understand the written word but also to be able to write what he knows. In language teaching, if the emphasis is upon the spoken word, then we might not consider the written word. Electronic devices would then be ideal. But when a language is being learnt fully then the learner's ability to express himself and to be able to write fluently is very essential. Even in face-to-face teaching the student is made to do as much of written work as possible. Discounting the importance of the written word in the learner's assignment is rather sad. Ticking off the right answer from a multiple choice question requires a lot of concentration from the student. But normally he depends on guess work. If more students in survey programs opt for multiple choice answers, it is chiefly because they find it more convenient.

THE WRITTEN WORD AND THE FEEDBACK INSTRUCTIONAL MATERIAL

The cycle of the distance educational system is completed when the assignment of the learner is corrected by the instructor and sent back to him. Correction with the help of computers is possible only in objective type or multiple choice questions. Marking the student's answer sheets or test papers means not only marking out providing information and clarification of the learner's response as well as correcting errors and evaluating his performance. This process is a type of remedial teaching and without this the system of two way communication is not complete. That the written word is very significant here is evident from the fact that even those students who send a blank answer sheet first start responding when the teacher puts an encouraging remark and prods him on to write.

The written word here becomes even more important than voice contact. It does not remain mechanical or impersonal. In correcting a composition exercise, for instance, the instructor will also correct the spellings and grammar of the piece. He would not confine himself to the mere rightness or wrongness of an answer written by the learner. Not even the most perfect of technical or electronic devices can replace the written word here.

THE WRITTEN WORD - IRREPLACEABLE OR OUT OF DATE?

This brings us to the crux of the problem. Can we or can we not rely upon the written word? We have seen how the written word is significant where the student's response and the feedback material is concerned. The shortcomings of the written word are certainly on the instructional material. Yet, can we think of doing away with the written word? We can supplement it with the technical devices. The basic lesson, however, will have to adopt the written word for its medium. The written word does not get distorted in being communicated, nor does it get lost. The learner can always refer to the written instructions.

Electronic and mechanical devices are not available everywhere. So nations which cannot afford the cost have to fall back upon the written word. But what of developed nations where they can be generally used. According to A. Christodoulou and Prof D. G. Hawkridge in terms of the average student's time per week the TV occupies a small portion only (5 %). Out of the ten hours learning a week, they feel, the learner will watch TV for only 25 minutes. Radio will occupy about the same time. And the remaining time or most of it i.e. about nine hours will go to reading, writing and answering questions. This is in no way underestimating the value of these devices, but it makes it all the more clear that their function is to act as a stimuli and to supplement the shortcomings of the written word. Then along with these devices the written word can form the ideal medium for distance education.

Learning takes place in a social environment, but fundamentally, "it takes place within the individual". In distance education we have neither to duplicate classroom conditions nor always to try to provide some substitute. We can induce our students to learn to read and to enjoy reading. We could begin by sending them some interesting material which would make them respond to a written word. Then reading will be, for them, a brisk exercise in the open air. Their imagination can have full play without the restrictions of the mechanical devices.

When the written word, as I have understood it, is emphasised in all the three processes discussed, it will never become out of date. Besides, the relevance of any medium lies in its availability to and utility for the learner. If the written word stands the tests of time, as it has done so far, we can confidently feel that it is irreplaceable.

Why Do We Make Commentary Courses?

A Comparison between Three Types of Correspondence Courses

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This paper endeavours to identify educational and administrative effects of

- courses compiled from single-unit modules
- courses consisting of general text-books with special commentary course material
- specifically designed courses, integrating information, presentation, counselling and provision for student activities and two-way communication.

The greater part of the paper deals with the second and the third type of courses, including an analysis of some pedagogical aspects of a selection of courses at the author's institute, NKS.

Lastly, some characteristics of the two types of course designs are illustrated by a couple of drawings.

1. CLARIFYING THE CONCEPTS

1.1 Building-block courses

Within a serious context, you should perhaps confine yourself to subjects that you know something about. In this respect, I have to apologize for not quite omitting the first type of courses to be dealt with in this paper. I really don't know very much about this type of correspondence courses. Consequently, I shall be rather short on this topic.

Some correspondence institutes have developed what could be called a building-block system of course design. They build up a course from several independent study units, or modules, each of which is terminated by a set of assignments. Each module may be used in several different courses. One correspondence course may be compiled from for instance six single modules, sometimes together with a specially designed study manual. The studen. will also in some cases be allowed to omit one or more modules, or to make a composition of modules especially for his needs.

I should perhaps mention here, that my school, and many other schools too, make use of this principle on a macro scale, in what we at NKS call "course compositions". We have several standard compositions of courses, for instance those preparing for public examinations. But each course in a composition of this kind will as a rule have a number of study units (or "letters"). The modules are thus not single-unit modules, as in the proper building-block courses. When talking about building-block courses in the rest of this paper, I shall be referring to the single-unit type.

1.2 Commentary courses

A commentary course is a correspondence course with at least two separate components:

A. Basic material, e.g. general text-books, literary works, official documents. As a rule, the basic material is published by another institution, and not by the correspondence school itself.

B. Supplemantary (commentary) component. It's this component that makes the course. It always includes assignments to be sent to the school for evaluation, and in addition to the assignments it may include other types of questions and exercises, guidance for study, summaries, examples and supplementary commentaries on the basic material, in order to supplement, bring up to date or adjust the basic material to the target group in question.

As a borderline case I would like to mention that if the correspondence school owns its own publishing house, as for instance the NKS does, and thus in some cases publishes both the basic material and the supplementary component itself, there is some confusion whether we should call such a course a commentary course or not. Obviously, the administrative effects are not the same as when the basic material is published by another institution. But the pedagogical consequenses are often very similar. Therefore, I prefer to classify the courses of this kind as commentary courses.

1.3 Independent courses

An independent course, in my terminology, is designed as one, self-supporting unity, including all relevant information, counselling and provision for student activities and two-way communication. In Norway, this is the traditional type of correspondence courses. In spite of its being designed as a unity, an independent course may

very well be divided into several units, either successively ("letters", study units) or in parallel units (audiovisual components, glossaries, exercise books etc. in addition to the main component).

1.4 The criterion of distinction

As you no doubt will have noticed already, there are some difficulties involved in the distinction between commentary courses and independent courses. What is the difference between for instance a multimedia course, or an independent course with several parallel components, and a commentary course? Again there are borderline cases, but I think the decisive criterion should not be the degree of, but rather the type of integration of the components. In an independent course the components are mutually integrated, so that the course constitutes one, unseparable unity – "take it or leave it". In a commentary course the basic material may stand alone, for instance as a text-book for use in schools or for private study. Only the supplementary component makes it a correspondence course by adding at least some assignments which provide for two-way communication. The integration of the components is not mutual, but "one-sided".

The distinction between building-block courses and the two other types of course is unproblematic. In principle, the units of a building-block course can be either of the "commentary" or of the "independent" kind.

2. ADMINISTRATIVE AND EDUCATIONAL EFFECTS OF DIFFERENT TYPES OF COURSES

2.1 Building-block courses

I think it will be useful to distinguish between two ways of using the building-block design.

The first one is the building-block design used within some rather limited area, allowing the students to select and combine modules according to their special needs and interests. For instance, instead of making an extensive course for workers in the plastics industry, covering the most important materials, machines and processes, you could split the course in perhaps ten independent modules. Some obvious effects would then be:

(1) a. The student can drop subjects that are of no practical interest for him, and select those modules that are most relevant.

b. Thus, the student doesn't pay for more instruction than he needs, nor does he waste his time.

c. Because of a and b the student's motivation will increase.

d. The correspondence school will presumably have sales increased, owing to the more appealing course design.

e. The sales of the different modules will vary, and cause some problems concerning decision of number of copies and cost accounting.

Another situation where this course design will be of interest is when a greater part of a school's courses are planned as single-unit modules. Of course there are a great number of subjects that recur in many different connections, and modules of for instance mathematics, psychology, etc. can be used in many cases, without being rewritten for every single course where they are needed.

This is a much more complicated case than the first one, and I don't think I'm able to survey the whole situation. But I shall try to imagine some of its effects.

2.2.2 Administrative/practical effects

(2) a. The system demands a systematic, whole-scale planning of course production. The planning will be rather resource-consuming, especially in the period when the building-block system is introduced.

b. Once established, the course production will be rational and economic, but will still demand a broad view of the whole field of courses.

c. Revision of single modules can easily be undertaken, but alterations within one module will affect a broad range of other modules, not easy to survey.

d. The system will be flexible, and can offer "tailor-made" combinations for different target groups.

e. The use of building-block courses on a large scale will mean considerable administrative complications for storage, forwarding of course material as well as for ordering and registration of students who wish different combinations of modules.

f. If, as I have already assumed in letter e, the students are granted freedom of choice of modules, there will also be a considerable need of counselling service from the school. The amount of this can of course be reduced by presenting to the students (in prospects etc.) a variety of "course packages" composed for various normal needs.

2.1.2 Educational effects

(3) a. If the choice of modules is not too complicated, the students will presumably be stimulated by the opportunities of selecting modules according to their personal needs and wishes.

b. Provided the necessary counselling is being given, I think the students will have a better chance of beginning their studies at an optimal niveau of difficulty.

c. Some dangers are also involved, one of them is the danger of the presentation being too much divided, and the modules too isolated in content. This type of non-coherence within a course can – to a certain degree – be remedied by making special manuals or study guides for each combination of modules (each course). This is, however, not possible if free choice of modules is granted.

d. Another danger will be that the modules are written in a

quite general manner, in order to fit into as many combinations as possible. Special problems which are relevant in only few cases, will be omitted.

e. Further, I imagine a risk that some modules won't fit together. One module will perhaps overlap another, or, more seriously, it will presuppose knowledge which students with som particular combinatio.s in fact don't have.

f. With courses co[illegible]sed of single-unit modules, I believe that the school probably will engage different teachers for different modules. The effect will be that students will have several teachers correcting and evaluating their assignments during the course. Thus, the standard of evaluation will vary, and the student will not feel the same personal contact as if the same teacher did correct all the assignments of the course. This I think will mean an impairment to effective two-way communication.

2.2 Commentary courses versus independent courses

At NKS, some 35 % of the total mass of courses (about 400) are commentary courses. In recent years, the proportion of commentary courses to independent courses has increased, for several reasons.

Before writing this paper, I asked some 20 persons at NKS to answer a questionnaire about practical and educational aspects of commentary courses. The answers differed considerably, and this fact, I think, raises two important points:

A. The concept "commentary course" conceals a great variety of individual courses, differing considerably in design, usage and quality. Therefore our viewpoints depend on our individual experience and background, (as well as our imagination).

B. We don't know all the effects of this or that type of course; especially regarding the pedagogical aspects, we rather believe and guess, without really knowing.

You should perhaps have those two points in mind while reading this paper.

Another point that I should mention, is that in some cases we have no choice, and we then have to make a commentary course if we shall make a course at all. For instance, when the subject is a literary work or a religious text, the only alternative is to make a commentary course, not to rewrite either Shakespeare or the Bible. Another example: when the target group is very small (as it often is in a country like Norway), we cannot make an independent course, because it will not pay.

2.2.1 Administrative/practical effects

First, I shall consider some reasons in favour of commentary courses, as well as reasons against this course design (and thus in favour of independent courses). Afterwards I shall also identify some effects (which at the same time may be considered as reasons; the reasons are, however, not always effects as well) of the commentary course design.

I think there are four main reasons behind the choice of a commentary course design.

(4) a. There already exist text-books suitable for the purpose, for instance books that are being used in schools (and sanctioned by the Ministry of Education), books written by well-known authors, books of current interest, or simply, books that cover our own purposes.

b. A commentary course can be made in a comparatively short time, and in some cases this fact is rather important.

c. It will generally be less expensive to develop and produce a commentary course. When the target group is small, this argument will be still more decisive.

d. Sometimes we wish to publish and market the content of a course in the form of a book for sale in ordinary book shops. We then split the course ourselves into a text-book and a commentary component. This often happens when we consider the subject to be of general interest outside the scope of correspondence instruction, and therefore can sell the book separately.

In addition to those four main reasons, there are a couple of other reasons, which I think are not quite so important, but still deserve their place as a complement.

e. It is often easier to get an author to write a commentary course, because it will entail a less amount of work.

f. Some subjects (and professions) are in a state of continuous change. Courses within such subjects therefore will have to be brought up to date at short intervals. At least in some cases, this means that the less expensive design will be preferred (cf. letter c).

Some reasons against the choice of the commentary course design are the following:

(5) a. When there exist no suitable text-books, neither from a professional nor from an educational point of view, the commentary design is out of the question.

b. When basing a course on a text-book, published by another publishing house, we should not be too surprised if some day there are no more copies of the book for sale, or if a new edition is launched without any information having reached the correspondence school in advance.

c. When the greater part of the courses of a school are commentary courses, based on text material from other publishing houses, the "image" of the school will perhaps not be that of a considerable, independent educational institution.

d. When we make a commentary course to a text-book from another publishing house, the sales will be lower, compared

with an independent course, where all the course material is produced by the correspondence school itself.

When in due time the choice is made, and the commentary course is produced, we will have to reckon with some effects, in addition to those we have considered as most important when making up our minds. Among them are:

(6) a. It's possible to utilize experience gained from classroom use of the text-book.

b. It's possible to make various commentary components, adapting the base text-book to different target groups.

c. We will generally have no influence on the basic material, as presented in the text-book.

d. We will have to adjust the commentary component when the text-book is reprinted in new editions.

e. Some students will be displeased with a commentary course, partly for practical reasons (two separate components), and partly because they think they are paying too much for the commentary component with the fewer pages (not realizing the real cost of the correspondence instruction).

f. As a rule, we will also have to keep on hand a stock of the text-books from other publishing houses, tying up capital and demanding accurate accounts of purchase and stock.

2.2.2. Educational effects

I feel that we know something about the administrative and practical effects of the two types of course design which we are considering. Coming to the educational effects, however, I am afraid that we know in fact very little. We have our personal experiences, and we have our beliefs, and not very much more than that.

In addition, we should perhaps not at all think of effects, but rather of possibilities and limitations. The effects are not established once and for all. It is essential to consider, not what we have done, but what we can do.

Even so, I think it is worth while trying more than one approach. At least as a starting point we should ask ourselves what we really do, not only what we think we are able to do.

For this paper I asked my colleagues at NKS to weigh the possibilities of commentary courses against independent courses, considering about twenty specified teaching functions. Of course, I did not expect agreement, and I didn't get it, either. But from the answers I think I can find some indications of what is the general view at our school. (For the moment I shall keep back my own views.)

The first conclusion to draw from this material, is that for most functions, we believe that the designs do equally well. For instance, the design will cause no difference regarding functions like

- presenting correct information
- explaining intentions and stating objectives
- informing students of their progress
- giving references to literature
- activating students
- seeming attractive to students
- providing study guidance
- giving examples from several areas
- motivating students
- giving summaries and hints for repetition

There is also a general belief that completion rates and study results will show no difference, at least for adult students.

The second conclusion is that for functions where one believes in some difference, the general opinion is that independent courses have most advantages. Among functions that one thinks that independent courses "do best", are

- providing material that is simple to use
- presenting information clearly and well arranged
- utilizing a consistent methodology
- presenting information in a pedagogically sound manner
- presenting information in an interesting manner
- seeming attractive to students (a strong minority believes this, the majority thinks that for this function there is no difference)
- structuring information for the students

As a consequence, one believes that independent courses will be the best alternative, at least for young students.

A minority believes that commentary courses will do best for functions like

- giving examples from several areas
- giving references to literature
- activating students
- giving summaries and hints for repetition

Now, there are a few functions left, and I shall list them. For these functions the views are too divided to draw any conclusions at all:

- making use of the students' previous knowledge
- taking into account the interests of the students
- promoting independent attitudes to the information given
- presenting information in a nuanced manner

Obviously, the general attitude among my colleagues at NKS is in favour of the independent course design from an educational point of view, and we make commentary courses mainly for practical and economical reasons. However, I did not feel the matter settled by this, and decided to carry my analysis one step further.

3. AN ANALYSIS OF SELECTED PAIRS OF INDEPENDENT AND COMMENTARY COURSES

Having considered the educational effects in this way – on the basis of experience and presumptions – I thought it worth while looking at some of our courses analysing them in the light of the results so far. From the NKS prospects I selected 11 pairs of courses, according to the following criteria:

Each pair should consist of one independent course and one commentary course. Both courses should cover the same subject, or similar subjects, be on the same level, and have the same or similar target group(s). In addition, the pairs should cover different subjects and levels, so that the whole group of courses should be as representative as possible.

The eleven selected pairs of courses fulfilled these demands fairly well, and the analysis was accomplished. Because this was a rather time-consuming sort of job, I decided not to analyse the content and structure of the factual information given in the courses. I wished to include an analysis of the readability, but had to drop it in order to finish in time. Therefore, I concentrated on questions like

- What kind of introductory remarks do the courses have?
- What kinds of student activities are requested and stimulated?
- How much information does each study unit contain?
- Does the text give any study hints, summaries or hints about repetition?

Of course, an analysis like this one doesn't give any decisive answers. It was carried through in order to get some more indications of distinguishing features of the two types of course designs, and perhaps adjust the presumptions presented in the preceding section of this paper.

Which were the results, then? Let me summarize them as follows:

(7) a. Commentary courses contain as a rule considerably more information per study unit. The amount of information also varies more from one study unit to another than what is the case in independent courses.

b. The commentary courses have in most cases better surveys of the content, partly because of tables of contents and indexes in the basic material (text-books).

c. All the commentary courses have a few introductory pages, talking about the course and how to work with it. This was not always included in the independent courses that were examined. The introductory paragraphs of the commentary courses are also more specific, giving more guidance for study of just this course, including detailed hints about study technique. When the independent courses deal with study technique, they often refer to the general brochure which follows every NKS-course.

d. The commentary passages in each study unit of the commentary courses differ in content. Sometimes they contain supplementary notes and comments on the basic text-book, sometimes they only paraphrase the text-book. In many cases they also contain more or less detailed study hints regarding difficult passages in the text-book, important or less important passages, key concepts, problems, and illustrations, recommended sequence of study, and so on.

e. As a matter of fact, the selected commentary courses more often refer to supplementary literature.

f. In the courses of this analysis, I found more often problems and exercises that asked for personal experience or local conditions in the commentary courses than in the independent ones. However, in one case it was the other way around.

g. Regarding the manner of addressing the student and talking to him or her (or not doing so), as well as regarding types and amounts of exercises, questions and assignments, summaries and hints of repetition, I found no systematic differences.

Before drawing any conclusions, I should mention that a couple of the independent courses had been written some years ago. However, I don't think that this fact had any considerable effect on the results of the analysis. To the letter c above I should point out that in courses written to-day, we always find included some introductory pages. But I think it is still a fact that study hints are often more specific in commentary courses.

4. EDUCATIONAL EFFECTS OF COURSE DESIGN – SOME CONCLUSIONS

My conclusions will refer only to the comparison between independent and commentary courses, and I shall limit myself also to the consideration of educational effects, not practical and administrative ones.

The first conclusion is that in spite of certain inherent differences, the main effects arise from the coursewriter's educational competence, imagination and creativity. I don't think you can justify regarding either type of course design generally inferior – or superior – to the other one. Most of the teaching functions referred to in section 2.2.2 above – or any other specification – may be taken care of within both designs. Perhaps not equally well, but essentially in a satisfactory manner.

The second conclusion applies to the courses that are being produced at the NKS to-day. I think we are able to identify some more or less distinct differences between the two types of course designs. In my opinion, the results listed as (7) a. – g. are fairly representative. As a consequence, we should admit that most commentary courses do better than independent courses as far as such teaching functions as providing study guidance is concerned.

The reason for this I think is partly psychological: While the author

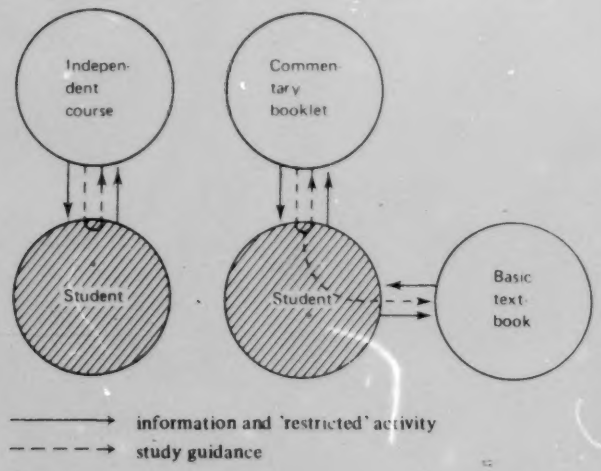
of an independent course goes straight ahead telling the student some important matters, the commentary course author finds himself at the very starting point forced to comment on something already written. The obvious thing do do then seems to be to tell the student how to get something out of the text-book, and to devote oneself to the task of arranging the sequence of study.

Having found that there are certain differences between the two types of designs, we also ought to examine in what manner the students do experience those differences, whether their motivation, study habits or so on are influenced. I regret that I have not been able to carry through such an investigation for this paper.

As mentioned earlier, it is perhaps more essential to know what we can do, than what we have done. The question is then, can we draw any conclusions regarding the possibilities and limitations, rather than the established effects?

Let us consider some simple models, in order to visualize the situation of the student and the coursewriter.

Fig. 1 Independent course Commentary course



The illustration (fig. 1) stresses the main difference in course design: The author of an independent course is the main supplier of information to the student, and he also gives the student exercises, questions etc. for what I call 'restricted' activity, e.g. restricted to the information contained in the course. The author of a commentary course is in another position. He is somewhat more a manager of study, giving the student directions for handling the basic text-book. He is the third part in this constellation, and an independent student is able to accept or neglect his advice. In other words, the student is more autonomous, and a more independent attitude towards the information given may be fostered.

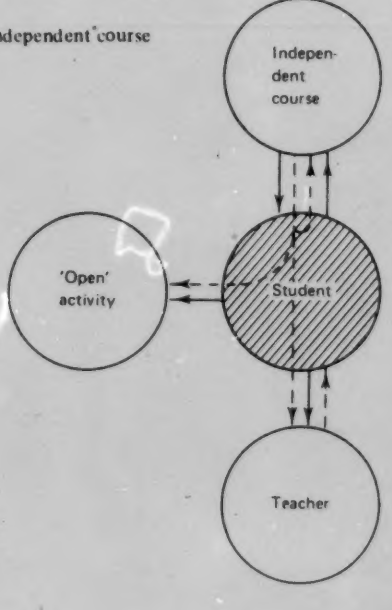
Of course, this is a simplification, but I think it is essentially valid. If we try to attain the same effect in an independent course, we will presumably experience some mild form of schizofrenia, the simple independent course being more or less split into two 'personalities', an informer and a commentator, and those two persons may not easily be intermingled without producing some confusion.

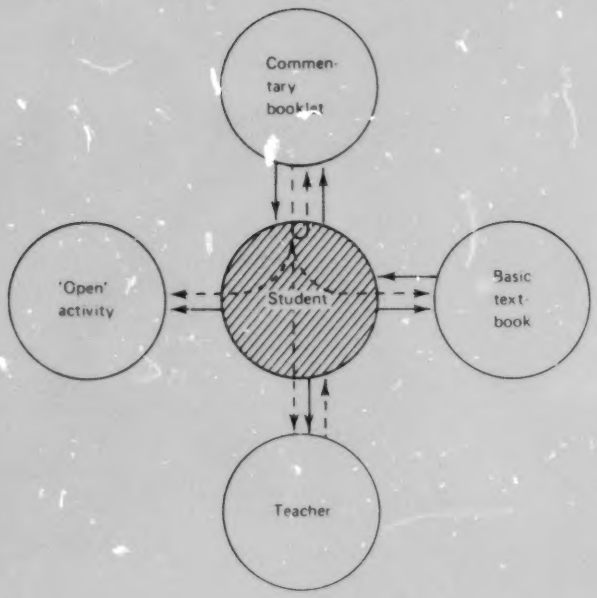
As a matter of fact, I have found two distinct types of commentary courses, giving comments on a macro and a micro level respectively. The micro level commentary course guides the student by small steps through the text-book, referring frequently to statements, illustrations etc. The macro level commentary course gives only rather general instructions, guiding the work with one study unit at a time.

I think it is possible to include some of those macro level comments in introductory or concluding passages of independent course study units, without bringing about any confusion. Actually, I think it is rather important that this should be done. Perhaps it is not so important to give micro level comments, in any case we should in the long run strive to make our students so trained for study that they won't need them any more. Moreover, I think it is the micro level comments that have given commentary courses the reputation of being unpractical in use, because they force the student to read the commentary booklet and the basic text-book with one finger tip in each book.

To explain my use of the term 'restricted' activity in fig. 1, I just ought to mention another dimension in those models. This third dimension I shall call 'open' activity, i.e. student activity not guided in detail by the course, and not restricted to the information given in the course. This dimension, I believe, makes no fundamental difference between the two types of course designs. For the sake of completeness I shall nevertheless show this dimension in fig. 2, together with the well-known dimension of two-way communication with the correspondence school teacher.

Fig. 2 Independent course





By including 'open' activities in an independent course, a more autonomous and independent attitude towards the information given may be fostered, and the difference illustrated in fig. 1 is then diminished. The use of macro level comments and 'open' activities thus "enriches" the independent course model to the extent that I don't think it matters very much, from an educational point of view, which of the designs we choose in each case. My third conclusion is therefore, on these conditions, the often experienced one in educational research, "no significant difference".

Nevertheless, I think we have learned that whatever our personal beliefs about advantages and disadvantages of these two types of course designs might be, we do wise in contemplating on their distinctive features, in order to make the best possible use of each design.

Making Correspondence Courses more Imaginative and Innovative

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In a humoristic and imaginative way the author tells from his own experience how he succeeded to inspire his staff and increase the standard of correspondence instruction within his own institute.

The main part of the paper gives a great number of examples, illustrative of the imaginative and innovative approach to the writing of study guides, advocated by the author.

HOW TO BECOME AN EXPERT WHEN YOU HAVE NO EXPERIENCE

On a few hours' notice in the unsettled days of February, 1964, I inherited a responsibility for which I had no specific previous experience: the correspondence instruction program of the Massachusetts Department of Education. My urgent desire was to prepare some imaginative study guides rather quickly, but first there had to be some basic changes. An imaginative and innovative study guide will not be written unless the environment is also imaginative and innovative. Obviously, my organization, as it existed in early 1964, was unimaginative.

A few years later, when my counterparts at leading midwestern universities began to ask my advice, I dared to think of myself as an expert. The feeling was confirmed as Massachusetts correspondence courses won three national awards, three of our administrative manuals were distributed nationally on microfiche, and four major universities purchased reproduction rights of several study guides.

a. But how does all this come to pass when you have no experience? The lack of experience may be a blessing. You look critically at the way things are being done and decide that it isn't good enough. You visit a successful enterprise to see how it works and wonder if the same procedures fit your situation at home. You also mingle at national conventions if the expense account permits. (Three days at Pennsylvania State University and the NUEA Conventions were real treats!) But mostly, because you're not familiar with the usual way, you use your imagination to develop new answers.

b. We sent "how-do-you-do-it" questionnaires to the 60 other NUEA members who offer correspondence courses; it seemed like a good idea. The quiz was five pages long; the questions were specific and could be answered off the top of the head in most cases. To offset the length, we sprinkled the queries with humor. (Some of the answers were also definitely unacademic. One respondent wanted tickets to the next Red Sox game in the World Series!) Joy of joys, there was 100 % response. We were so pleased that we wrote a major article on the findings. This was published in the prestigious NUEA Spectator.

c. No one person in our shop had all the answers about internal procedures. What to do? Write a staff manual which would state our philosophy and clarify our procedures. Functions are thus defined, i.e. this is the way, step by step, that student papers are processed. Once functions are defined, assign people to carry them out.

d. Set a high standard. Be ruthless (if necessary) in getting rid of people who don't or can't measure up. (Most of the "deadwood" depart peacefully when they discover it is a new ball game). Act with vigor in throwing away old and/or inferior study guides. Resist the temptation to use up what you have on hand just because it sells. People may buy, but they aren't going to be pleased with a product of low quality.

e. Recruit your own professional personnel. Look not so much in the usual places as in the unusual places. Get interested in the applicant with the impressive resume and good recommendations. When he/she arrives for an interview, make a tentative decision in the first 30 seconds. If the decision is negative, he/she hits the street in 10 minutes. If the impression is favourable, spend eight hours or so in interviews and investigation of this one person.

   Similarly, in hiring part-time faculty, go for the cream of the crop. Our practice has been to begin our search in the better public and private suburban schools. We may then ask the principal or department head, "Who is your best teacher in (name of subject)? Let's see if we can get him/her."

f. Write imaginative study guides. It is not enough to accept whatever manuscript the author submits and then merely correct grammar, spelling, and punctuation. Have a one-to-one author's conference. Guide and encourage each author. Persuade him/her to use the Author's Handbook (our own of course!).

   Some manuscripts from authors need to be modified beyond recognition; others need only minor changes. In between

is the complete rewrite in which every topic remains but is restated in different words. (You may prepare a revised manuscript in an unfamiliar technical field only to be told that "you write well, but it isn't true". Fortunately, the expert tells you that changing three words that don't hurt the style will make it true!)

Sometimes you might as well write your own study guide. Who else can do it better? and quicker? Once I tried to buy a certain course from a major midwestern university. There were endless delays. Finally, I wrote the study guide myself and told my counterpart, "Cancel the order. Here's a copy of my own study guide". He wrote back, "Congratulations, I'd like to buy yours." He did.

Sometimes this works well! Write a study guide in a subject which you found difficult in your student days. Now you can explain it simply to the marginal student. You appreciate his lack of understanding. Thus we devised a really good study guide in Bookkeeping.

HOW TO MAKE COURSES MORE IMAGINATIVE AND INNOVATIVE

The last point – to write imaginative study guides – deserves special attention. The rest of the paper will deal with some specific ways in which we at the Massachusetts department of Education have made courses more imaginative and innovative.

1. Use an interdisciplinary approach.

History, for example, is not isolated from other disciplines. The literature of the times is a part of history. So are old advertisements and the baseball scores of years ago! Our students read many official and personal documents. Art (especially photographs, drawings, and cartoons) is a part of the record of any given age. So is music, because songs reflect the feelings of a particular time. We hope to get more art and music into future study guides for such courses as English and history.

2. Use a humanities approach even in subjects which do not deal directly with human problems.

As long as we have an interdisciplinary approach it is not difficult to relate a language to a national literature and a nation's literature to the history of its people. (This we have just discussed.) But it requires more imagination to relate geometry to human problems and human feelings. But recently we did just that!

We point out many specific vocational applications, i.e. how human wants and needs are satisfied by the use of geometric principles. But we go much further in 24 optional "think" problems. Here are some examples:

a. Five roads come together at an intersection. Without using either an overpass or an underpass, show by a diagram how we can simplify the traffic pattern without limiting access to any road.

b. Imagine that you are at a cocktail party attended only by geometric figures. Describe the personal characteristics of several of these figures. (Example: Mr Isosceles Triangle is a well-balanced individual who is strong in body, alert mentally, and faithful to his religious beliefs. In talking about politics he will take a firm stand and come to the point quickly. He is sure of his convictions and not easily upset by those who disagree with him. He is a hearty eater and very sociable. As you will learn from his conversation, he is an exporter engaged in "triangular trade."

c. In another exercise a man is engaged in an encounter, using only the simple weapons at hand. The encounter is described in geometric terms only. The student is expected to visualize the scene and translate it into everyday, non-geometric language. (The "simple weapons" are a knife, fork and spoon. The "white flag raised in triumph rather than in defeat" is a napkin used at the end of a satisfying restaurant meal!)

3. Recognize that English (or your own native language) is more than formal grammar, learning how to write correctly, and a study of literary classics.

English (or any other language) is communication. In one of our English courses we study a complete novel in cartoon form. There are no words in this novel. It is easy, however, to "characterize" the villain because all his characteristics – as well as his actions – are exaggerated. We look at a painting to find meaning; it is just as logical to look at a series of comic pictures to find meaning.

In this same course we invite students to answer certain questions by making a drawing instead of by writing words. Another choice is to tell an artist (in words and perhaps a very crude sketch) what to draw. Another option is to draw a series of sketches which will tell a simple story. Skill in drawing is not important. Communicating an idea as effectively as possible (with or without words) is important.

In another lesson each student listens to a series of recorded sounds (or recalls sounds vivid in memory), then writes about his recollections. He is deeply involved, therefore his writing tends to be interesting, vivid, alive!

Elsewhere in the same course students learn about "body language" (how we use our bodies to communicate) and the many procedures involved in applying for employment. Writing a letter of application is not enough!

Television is no longer an enemy. We teach about the old West of fact and fiction, then ask students to make a critical analysis of a

television western drama. Was there a symphony orchestra playing in the desert? When the heroine was rescued from the clutches of the bad man was her hair in perfect order?

Another English course is devoted almost entirely to grammar and composition because some students need such an emphasis. Here different innovations are used. The whole course is built around a "house of English" concept. Building a composition is like building a house. Different parts are fitted together in a prescribed way to make a house of wood and/or brick and stone. Likewise, the "house of English" is constructed of the various parts of speech (nouns, verbs, etc.), each used properly.

Most of the composition in this course is non-traditional. Each student is asked to write briefly about his views of the opposite sex and about something he "hates"; he also writes a letter of protest to the editor of a local paper. These and other exercises are effective because each student is emotionally involved in his topic.

Yes, English is more than formal grammar, routine composition work, and classical literature. English (or any other language) is the whole of life! We recognize this principle in our courses in Latin, French, Spanish, and German.

Latin is taught as an aid to effective English. Roman life and culture are interpreted in terms of their significance to modern society.

In the study of the French language we become acquainted with the vivacity, the artistic temperament, and the mental alertness of the French people. Quotations from noted French writers often point out a psychological thought, a critical observation, a historical fact, a flash of wit, or an interesting comment on men, women, life, love, liberty, politics, education, or the arts.

Similarly, in Spanish we find out how other people live. What songs do they sing? What are their favorite sports? What is the Spanish temperament and point of view?

The reading and writing of German are taught through conversational patterns. Intimate glimpses of the German people (especially students), a wealth of cultural information, and biographies of great men make our German courses distinctive. German literature and music are emphasized. There are many "thought questions" to be answered. (Our German courses we originated ourselves. The Latin, French, and Spanish courses were purchased from the University of Wisconsin.).

At this point let us pause to remind ourselves that we do not innovate just to be different. We innovate to communicate more effectively, to interest and motivate students to learn, and to help students to put to use what they have learned.

4. Use games from time to time.

In one of our English courses we use a crossword puzzle and an anagram (word game) to emphasize important points. There is no objection to a little fun as long as the game has some educational value.

In a basic arithmetic course we use an adventure story with mathematical implications. Certain valuable paintings have been stolen. A detective, assisted by his able wife-secretary, pretends to be a buyer interested in purchasing expensive works of art. Eventually, the paintings are recovered, but meanwhile, at 25 points in the story, each student does some simple work with numbers. For example, he keeps the joint expense account of the detective team.

A simple but clever "numbers game" is used in the same basic arithmetic course. Given a handful of cards (each one bearing one of the digits 1 through 9 or one of the operational signs for addition, subtraction, multiplication or division), the player draws five cards. He must draw at least three numbers and at least one sign; he continues to draw cards until he meets the minimum quota. The game is to see how many number combinations the player can list and how many equations the player can write down and solve within two minutes. (A good score in 75.) This game not only develops awareness of relationships and skill in using numbers, but also substitutes fun for dull exercises. (Remember that the people who study this course have always disliked mathematics and have not done well in the subject. Our innovations are designed to show that they can do well.)

5. Tell stories where stories are not usually told.

We have already seen how an adventure story may be used as a game to teach arithmetic. But there are many other opportunities for stories.

In Business Law stories are inevitable. Some of the stories are complete, but in other instances the student must complete the story. We use a simplified case method throughout the course, but also rôle-playing in a few problem situations. In rôle-playing a student must look at a situation from two, three or more points of view. He then writes out what each person would say in explaining his own point of view. This method not only builds a complete story, but helps the student to see a situation from more than one point of view.

Our course in Small Business Management is sprinkled with brief stories of dramatic incidents. A waitress spills soup on a new rug. How do various restaurant managers react to this incident? . . . An American combat unit, cut off from its food supply, is fighting a losing battle. The commander is offered the only remaining food; he orders the hot meal destroyed immediately in his presence. What happens next? . . . Students may forget the academic principle, but they often remember a story which illustrates a principle very effectively.

Science fiction is used to good advantage in our Chemistry course. A relatively long narrative describes a journey through the human body into the land of CELL whose "citizens" are proteins, amino acids, carbohydrates, fats, and other organic molecules. Here are a few paragraphs from the record of the journey:

> "Lipase stopped a molecule which differed only slightly from himself. I want you to meet my cousin Carbohydrase. He's in the wrecking business also. How about showing our visitors what you do, Carbo?'
>
> " 'Glad to,' replied Carbohydrase. 'I'm on my way to pick up a starch chain now. I deal in the big molecules you know, not the little globules that Lipase handles.'
>
> " 'Yeah, but my product gives twice the energy that yours does,' retorted Lipase.
>
> " 'Come on,' said Carbohydrase, ignoring Lipase's last remark. 'I'll show you what happens to the starch and sugar that people eat.' "

6. Include unusual subjects in your list of courses.

So far we have been talking about how to make standard courses more imaginative and more innovative. Now we are suggesting that you should add a few courses which no one also has ever offered. Recognize a need which no one else has recognized! Since there is no pattern to follow, your innovation is likely to be really different.

Among our innovations in a course in Bionics. (The word comes from bio as in biology and nics as in electronics.) In this course one learns how to find clues in nature which will help solve human problems. Often, but not always, an electronic device is involved. Here is a course in learning how to think both scientifically and creatively; here is a way to enrich your day-to-day living experiences. No previous knowledge of science is required.

Another complete innovation is a course in Practical Politics. Instead of describing the structure of government, the course describes the different personality types found in the legislature, how each type gets elected, and the various ways in which the legislators adapt to legislative life. There are many actual incidents described. Some of them are humorous, some show individual legislators in an unfavorable light.

The homework in Practical Politics is certainly challenging. How will a certain legislator vote in a given situation? Why? How much should one reasonably expect of a legislator, considering the conflicting demands he faces, his own background of training and experience, and the limitations of his constituency?

Bible Background for Modern Literature is something of an innovation. It is not a course about the Bible. It is a course about certain everyday dilemmas (the question of ultimate authority is one) found both in the Bible and in modern literature. Modern works are studied in detail. Without the Bible background, however, they cannot be understood fully.

Still another innovation is a course in Preparation for Retirement. We enroll more adults in this course than in any other course. Apparently our study guide and our teacher meet a very personal need which none of us can escape. Until now the information needed for a complete retirement plan was not readily available to most people. Although the facts and ideas in our 100-page study guide are not new, these facts and ideas have been organized and discussed informally for the first time by correspondence. Personal retirement problems can be discussed more frankly by correspondence than in the classroom where other people are always listening in. Perhaps that is part of the reason for our success.

We prepare for every other important event in life; we should also prepare for death. So says the author of our innovative course The Facts of Death. Here are plenty of facts – medical, religious, psychological, economic, legal, etc. – and many opportunities to use them constructively. The study guide contains five funeral services in complete detail and a 5-page emergency planning questionnaire covering both business affairs and personal preferences as to religious rites.

Among the problem situations discussed in the study guide are these: paying respects to a deceased friend of another faith, how to do more than just offer routine words of sympathy, how to cope with your own grief if a loved one should die unexpectedly, how to plan ahead so that your survivors will not be overburdened at the time of your death. Each student is encouraged to ask himself such fundamental questions as: What do I believe? How can I best provide for loved ones and others?

Now let's close with a happy note. This year (1975) is the International Year for Women. We are celebrating it by introducing a very innovative course entitled The American Woman. May you be blessed by knowing a few really fine women!

In summary, let me say that I have shared with you many of our best ideas. You are welcome to these ideas. Take them and adapt them to your own uses. Each adaption will be a variation on the original and perhaps a significant improvement. But I hope that you will go one giant step further. Be inspired by these examples to think up entirely new ways to present information and ideas which will help students to learn. The greatest hope for improvement lies in that direction.

Visual Literacy and Distance Education

Dr. Eric E. Heckscher

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The author examines the nature of visual communication, particularly as it relates to adult education and training in developing nations, and advocates that visual language is the most powerful language for such education.

The paper deals in some detail with the nature of visual language and visual thinking, its structure and syntax. The selction of visual media is discussed, and the author raises basic questions which we are a long way from being able to answer with accuracy.

The paper also discusses the influence of cultural background on visual apprehension. Distance education today uses media which carry essentially the verbal message of Western man. We should stop looking at visual language as the poor relative of verbal language, and recognize its immediacy and its richness in communication.

Visual perception is visual thinking
Rudolf Arnheim
Les images ne parlent que si on les interroge
Anne-Marie Thibault-Laulan

INTRODUCTION

Distance education is a product of Western civilization, of industrial society. It is a response to the needs to educate masses of people, oftentimes busy people, and, more often, people living in places not readily accessible to traditional teaching media.

Distance education today is essentially verbal communication, even when the medium is alien to the verb, alien because it is conceived to mediate thought-transfer through other languages. This linguistic error is at the roots of failure of distance education to make a real dent into illiteracy and ignorance and to develop a methodological approach which transcends educational levels and cultural barriers.

In this paper I shall examine the nature of visual communication, particularly, but not exclusively, as it relates to adult education and training in the so-called developing or industrializing nations. I shall then point out that distance-educators have overlooked the most powerful language for such education and training, because they themselves are visual illiterates. And I shall submit that visual literacy is as essential to distance teaching as verbal literacy.

Here then are five aspects of visual literacy with which distance-educators should be acquainted if they are to be distance-communicators and not just distance-verbal-emitters who may never have much luck in being received: the nature of visual language, the form of visual language, the selection of visual media, culture and visual literacy, and visual literacy in distance education.

I — THE NATURE OF VISUAL LANGUAGE

1. Definitions

Let it be stated right away that we are threading our way in relatively unexplored land when we deal with visual language. A number of thinkers have written about the matter; unfortunately, they are mostly philosophers, not scientific experimenters. There is, nonetheless, a certain body of evidence on the nature of visual language. There are working hypotheses that have proved operationally valid for effective communication.

A language is a system of signs or symbols which can be learned, made meaningful. It is essentially concerned with the transmittal of thought. It makes statements about reality as it is perceived by the communicator. It permits communication between or among persons capable of utilizing the language. It has structure. In other words: "Every language implies a dialectic possibility and a logical structure" (3).

Language is conscious, purposive and formal. This is a limitative definition, selected because it is operationally convenient: language can thus be taught. It eliminates arbitrarily, therefore, sub- or unconscious and informal languages, such as body-behaviors and thought-transmission behaviors which are not formalized, at least as far as we know today.

Within these restrictions, purposive and gestural language is the basic language (as, possibly, the dance is the basic art). It is essentially perceived visually, sometimes kinesthetically or auditorially. Phonetic language is but the transmutation of gestural language. Ideographic writing began as a purely representational form of communication, although there may have been some correlation between phonemes and graphism. By visual language I mean the language of images,

whether single or multiple, whether fixed or moving. And by image I mean the significant visual signs or symbols which can be perceived as discrete entities. It is the gestalt, the pattern, the form of holistic theories (14). "Language is a set of perceptual shapes – auditory, kinesthetic, visual . . . . . ." (10).

2. Codes

One of the troubles with words is that people tend to treat them as absolutes. It is the verbal unreality of Ruesch and Kees. "When verbal and digital symbols are not repeatedly checked against the things they purport to stand for, distortions of signification may develop that nonverbal language seldom brings about" (8). One needs remind oneself often that the connection between a word and what it stands for is ephemeral and subjective by nature; that there is no connection, no attribute of fixity between the idea and its symbol. If there were, the symbol "would soon become an abstract sign lacking those living qualities" (3) without which it could not survive. Clearly, the less precise the language the greater the handicap. I would not dare, att this point, comment on the lack of semantic precision of specific Indo-European languages, because every one of us is likely to think his own mother-tongue the richest, the most precise, the most euphonious in the Tower of Babel.

Doubtlessly, "nowhere as much as in the case of the image is semantic effectiveness handicapped if not compromised through a difficult-to-master polysemy" (11). It is both the making and the unmaking of visual language that it is linguistically richer than verbal language. One more reason to learn how to read it, how to write it, how to structure it purposively.

The fundamental differences between verbal language and visual language can possibly best be expressed in computer science terminology. Verbal language, from this viewpoint, is digital codification; it deals with discrete step intervals (such as the numerical system and the alphabet). Visual language is analogic codification; it deals with series of symbolic representations which have formal and/or affective similarity to reality.

Words, as digital codification, "remain identifying or typifying symbols that usually lack the impelling immediacy of analogic devices" (8). Not only do they lack this one-to-one relationship that the image has with reality (the reality, however unreal, of the communicator), but they have semantic unstability over time and cultural boundaries, and they cannot represent efficiently "continua or changes over time" (8).

Images, as analogic denotation, possess that immediacy and affective attribution which one's perception of reality carries on its wavelength. Images possess this ability to represent efficiently continua or changes over time.

As to semantic stability, the image, even as the word, has style. Style, of course, is not only contextually and intrinsically connotative, but is marked by epochs and schools. To this extent the semantic stability of the image is affected. Nevertheless, a symbol's semantic stability is essentially and directly proportional to its representativeness of what it symbolizes. And, doubtlessly, the image as an analogic denoter, is normally more representative than the word. To that extent, therefore, the image is more semantically stable.

Having used the terminology of computers to define visual language, we might ask, with Rudolf Arnheim (10): "What, then, is the basic difference between today's computer and an intelligent being?", and reply: "It is that the computer can be made to see but not to perceive . . . . It is incapable of the spontaneous grasp of pattern – a capacity essential to perception and intelligence." Could it be that here lies the particular genius of visual language? At least the gestaltists seem to think so, and theirs is the only comprehensive and operational approach thus far available to learn how to write images.

3. Visual thinking

Rudolf Arnheim and René Huyghe have said much towards explicating the role of visualization in thinking. To Arnheim, in fact, "Visual perception is visual thinking" (10). To Huyghe, "What can be seen constitutes the forms; what cannot be seen, the forces." (". . . . le visible . . . . ce sont les formes, l'invisible . . . ce sont les forces") (7).

There is indeed increasing evidence that "truly productive thinking in whatever area of cognition takes place in the realm of imagery" (10). Could it be, then, that young children are truly productive thinkers, because eidetic imagery seems to be their major mode of thinking? There is likewise evidence that they are and that, compared to adults, their thinking productivity level is remarkably higher. And they don't use words! Productive thinking, of course, "ignores the property lines between the aesthetic and the scientific" (10). But, who said that the aesthetic was less valid in terms of intellectual development and the search for happiness and truth than the "scientific"? And who said the aesthetic, by its intuitive (and disciplined) approach to discovery and problem-solving, is any less "scientific" than the scientific?

The seed of genius never grows in the sterile world of the sign, of the concrete, of the logical, conscious, purposive analysis; it gestates and ejaculates into the world from the senses, from "intuition", from the "hunch", from the unconscious and the subconscious – the world of the sensory and the aesthetic. "Isn't the image possibly the synthesis of affectivity and knowledge?" asks Jean Mitry (3). "It is by logic that we prove, but by intuition that we discover", says Henri Poincaré. (16)

Arnheim's contention is that "the cognitive operations called thinking are not the privilege of mental processes above and beyond perception, but the essential ingredients of perception itself . . . . There is no basic difference in this respect between what happens when a person looks at the world directly and when he sits with his eyes closed and 'thinks' ". To him, sensory responsiveness is intelligent

behavior, and "intelligent behavior in a particular sensory area depends on how articulate are the data in that medium . . . . . Instead of more facility for reception, the activity of the senses is an indispensable condition for the functioning of the mind in general. The continuous response to the environment is the foundation for the working of the nervous system". The senses, in this view, are "biological aids for survival", and perception becomes purposive and selective. Moreover, ". . . . the essential features of cognitive models exist only in percepts . . . ." (10).

Even abstracting is not a purely cognitive function; it cannot exist without perception – no more than perception exists without abstraction. Kant already developed this concept in his cosmogony (17).

Yet, the reality of the image is as real as that of the word. It is only semantically and affectively richer. Whether it is richer in its reality or in its unreality is somewhat irrelevant. What is consequent is that it translates thought more richly. Not only does it translate it more richly, it does it more directly and with substantially greater economy: it is only one generation away from reality, whereas the verbal codification system is two generations away from it – one from the image-thought and one from the image-reality.

"Form and meaning are thus not a deciphering of the real, existing outside of us" (7). Form and meaning are part-projection of our own perception as it is modulated, fashioned, restructured by our individual anatomical, physiological and psychological make-up. And a sign or symbol is form and meaning – whether verbal or visual. The elements which make up visual language constitute what Joan Costa calls "the sign-situation" ("la situación-signo") (13).

Visual language, just as verbal language, possesses a form of its own, and, of course, the form affects the function.

Pierre Oleron emphasizes that there is no message identification without reference to the context (15). Or, as Anne-Marie Thibault-Laulan puts it: ". . . . it is not possible, in our culture, to find an image which is pure denoting, without any connoting." (11).

If visual thinking is perception thinking, then it precedes verbal language; it is of a higher hierarchical order in the thought and the communicative processes. Indeed, in sensory perception the general precedes the particular; and the senses perceive relations before absolute values.

Visual thinking, therefore, is essential, and at least as important to thinking, as verbal thinking. It stands to reason then that we must develop our visual thinking abilities at least as much as our verbal thinking abilities, if we are to exploit our thinking potential fully.

II – THE FORM OF VISUAL LANGUAGE

1. Structure

"The outlet of energy aims at the creation of form." (10)

Form is structure because the mind perceives form only in terms of structure – first, the structure it superimposes on the real; second, the structure perceived by the retina and translated by the brain. It is this mixture of projected and reflected structures which make up form.

". . the human brain . . . seems always to seek to organize visual data into the most simple, regular and symmetrical configurations possible" (9). This follows the law of tension-reduction inherent to all natural systems. It is the first synthetical step in the perception process. However, it is soon followed by a restructuration based on the individual's repertoire (experience) of forms.

Perceptual grasping of shape is, furthermore, a scanning of the target towards completing it. To this extent gestalten are analyzable – an apparent but only superficial contradiction within gestalt theory, inasmuch as it is only a matter of functional levels; the gestaltist starts where the atomist leaves off. What is of interest to a theory of visual literacy is that the apprehension of form, i.e. the formation of concepts, is perceptual and essentially visual. It constitutes the first block in the structure of visual language.

Since thinking is basically the establishment of structural relationships, and since structural categories are constructed perceptually, and since vision is man's major perceptual medium, to think well we must learn to see well. "One wonders whether intelligence is not synonymous with the ability to structure", writes A. A. Moles (18). To learn to see well in order to think well is precisely the major purpose of visual literacy education.

"The impulse to interconnect visual ingredients so that they will have meaning is, perhaps, a basic function of intelligence" (9). Most probably, such impulse even precedes the cognitive function, existing already at the retinal level, as the eye seeks a target to relieve the ocular tension between inner and outer stimuli.

"Perception consists in fitting the stimulus material with templates of relatively simple shape, which I call visual concepts or visual categories" (10). These "templates" have:

1 – an anatomical component: the retinal transmission to the brain;
2 – a physiological component: the "somatic grasp" of external stimuli as a result of somatic functions, such as heart-beat and hand kinesthetic capability;
3 – an electro-chemical (or nervous system) component: the imprinting of the message in the brain;
4 – a psychological or experiential component: the modifica-

tion of the imprint as a result of scanning of the experiential reperoire.

It is through this mechanism that the formal representation of shape would seem to be formed in the brain, and that shape is not only a percept but a concept.

Perception can identify an outer target only because it recognizes structure. Whence, structuring can be equated with perceiving, and perceiving in turn, with concept forming. Concept formation, therefore, is visually mediated – not exclusively nor necessarily, but essentially and predominantly, in the non-blind person.

2. Syntax

Generative-transformational grammarians – a currently fashionable breed, speak of "surface structure" and "deep structure". Surface structure is the syntactical arrangement of the elements within a statement. Deep structure is the logical meaning which should be deduced from the statement. "From a semantic point of view, no language can fully report an event, and each language abstracts events differently. Despite these differences, however, we can see parallels in the deep and surface structures of both verbal and visual statements" (5). In other words, visual language has as precise and complex a grammar as verbal language. No teacher would dare write his text in a verbal language the grammar of which he ignores. Yet, he has no qualms whatever in writing in what he assumes to be visual language. Perhaps he is so adventurous because it never occurs to him that the language of vision is as structured as the language he normally speaks and writes. What he does, then, is very simple: he conceives the message verbally and then adds pretty pictures to illustrate, decorate or, sometimes, complement the holy verbal statement. Hence, the fiasco of much audio-visual communication. The visual statement is made up of syntactical elements basically not different from the verbal statement: the subject elements, the predicate elements and the object elements. As in verbal language, not all syntactical elements are always found in a visual statement.

Visual language has its punctuation too, and, of course, its style. In a still picture, some of the elements of writing are: the selection of point of view, the cropping, the distortion through selective perspective, differential focus, texture, direction, lighting, contrast . . . . not to speak of the arrangement of lines, masses and colors. And not forgetting the "moment précis" of a Cartier-Bresson. The message takes on added syntactical complexity in an ordered series of pictures, such as in the comic strip. Motion, in motion-picture films, renders the visual statement even richer, more effective and affective, while likewise enriching the grammar.

As the form affects the function (and circumscribes it), a still picture, by its very form, has powers and functions different from the ordered series or the filmic statement. It is therefore erroneous to force the message into the form. The message must be conceived in terms of the form, and the form selected for its appropriateness to the nature of the message.

The message must be conceived also according to the mode of reading it. Transversal reading is appropriate for messages concerned with qualities of logical attribution, whereas longitudinal reading is for messages concerned with qualities of implication (as consecution implies consequence). Transversal reading is primarily analytical and rarely integrates in one statement all the elements identified. Longitudinal reading, on the other hand, through what Thibault-Laulan (11) calls "restructuration", permits modal and temporal changes intrinsic, for example, to the filmic statement.

Given the complexity and richness of visual grammar, of the training one needs to learn to read and write in images, and, as we shall see, of the cultural conditioning of vision, one can hardly speak of the universality of the image. Visual language is as difficult or as easy to read and write as verbal language, and it too has its levels of syntactical and stylistic complexity.

A well-designed message is coded with economy, without redundancies. Details may be unnecessary. Surface-structure as such, as the form, should not be obvious; it should not only be the message-carrier but an intrinsic aspect of the message.

The image is as linguistic an element of communication as the word. Its syntax is infinitely richer than the word's. The problem now arises: when do we choose it over the word? And what kind of syntactical form do we choose to express in visual terms the message in its most appropriate medium?

III – THE SELECTION OF VISUAL MEDIA

Rudy Bretz has been brave enough to try and develop a taxonomy of communication media. He lists seven categories: audio-motion-visual, audio-still visual, audio-semimotion, motion-visual, still-visual, semimotion, audio, and print (4). And we are only at the beginning of the Audio-Visual Era!

William Y. Allen tried to establish instructional media stimulus relationships to learning objectives. Still pictures, for example, are best for learning discriminating cues, i.e. visual identification; motion-pictures stand highest not only for visual identification, but for learning principles, concepts or rules as well as procedures (2).

George L. Gropper defines his "criteria visuals": "The use of visual presentation appears to be desirable in those subject-matters in which visually perceived physical objects and events are integral parts of the criterion situation" (19). Lonigro and Eschenbrenner saw fit to consider the cost factor in media selection. In their estimation, for example, still pictures and graphs are low in cost, motion-pictures medium to high and television medium (20).

Finally, Nunney and Hill realized that it is important to match "the cognitive style of the student to the style of the mode of presentation of information" (21).

Nobody, to my knowledge, has undertaken the substantial task of providing a system of media selection which takes into account all these essential criteria:

1. the visual and/or verbal literacy (or literacies) level (s) of the student;
2. the learning style of the student;
3. the cost/learning-effectiveness factor of the media for given categories of target-populations and objectives;
4. the media stimulus relationships to learning objectives;
5. the effectiveness of different media on attitudinal changes;
6. the relationships between structural complexity of the message and appropriateness of the media;
7. the display-mode selected in terms of target-population structure and expected behavior (big group interaction? small group interaction? individualized study?)

These are, of course, many and complex variables to integrate into a selection grid. Moreover, none of these factors have been studied in enough depth to warrant the construction of such a selection instrument. Yet, we, the users, need to know how to choose among the many visual media and display modes which are at our disposal.

One first consideration, perhaps, is the clear dichotomization which must be made (and often is not) between medium and display-mode. MacLuhan was all too certain that the "medium is the message". Perhaps he should have been less publicity conscious and state that the medium and the display-mode both help shape the message. And further, that the message can only be structured in terms of the medium and of the display-mode. Less of a slogan, but more accurate.

The point is: how should a still picture be displayed, for example? As a single slide, as part of a film-strip, as a poster, as a printed sheet . . . . or would it be enough if the teacher roughed a sketch on the green or white "blackboard"? (in color or monochrome?) And, why the still picture? And, why the picture at all?

We are concerned, therefore, with three decisions:

1 – Should the message be written in image (s)?
2 – What should the visual medium be?
3 – What should the display mode be?

Possibly, a fourth question should be: is the visual message self-explanatory, sufficient unto itself, or should it be completed by written or auditory messages? Or, on the contrary, should the visual message constitute the complement to a message in another form of communication? To answer these questions we have just to establish a message-mode hierarchy which is a complex task, inasmuch as it involves a number of variables, including the learning-style of the individual student or of groups of students (if prouped in learning-style categories).

Nunney and Hill (21) develop cognitive style maps on the basis of diagnostic tests for cognitive styles, hoping thereby at least to identify the target-populations. Donald Britt (22), at the University of Cambridge, likewise tries to develop a learner typology (types N, Q and X, according to distinctive patterns of response in objective test batteries and instructional tasks). Heckscher (24) speaks of a learning-style continuum going from converger to diverger and relating learning-types to personality traits.

This is all very well, but shouldn't somebody try and develop a categorization system which measures visual literacy (or visual literacies) before attempting to select visual media?

Gropper found that when "a totally visual (pictorial) presentation of the concept to be learned preceded a verbal (print) presentation of the same concept, the learning was significantly greater and took significantly less learning time than when the verbal presentation preceded the visual one" (25). Why? He does not tell, but one may wonder whether it is not because concepts are percepts, in which case the verb may be used as a reinforcer, whereas the opposite does not hold true. And isn't this what teachers usually do: teach the concept verbally and then – if they are modern audio-vision buffs – reinforce the verbal message by a visual one? Shouldn't we reverse our thinking on this matter?

Jerrold E. Kemp (26), at San Jose State College, following Rudy Bretz's lead at the Rand Corporation, developed a kind of media selection algorythmic tree. This sequence chart diagrams, under teaching/learning pattern headings, three variables: presentation to groups, small-group interaction and independent study. He is concerned, for instance whether the learning experience should be vicarious or sensory. (Is this a comparison pair?). He expects the teacher to take a rather large number of decisions all long the tree branches. Yet, these are precisely the decisions we are talking about. How do we take them? How do we know whether a particular message for a particular population will transmit better in visual form or in audial form? This is all the more vexing when we know that audial communication is even less understood than visual communication . . . . about which we know little.

Kemp's and other researchers' tools for media selection are worthwhile efforts; they do help a teacher or trainer whose knowledge of visual language is nil or poor. However, they start at the bottom of the algorythmic tree instead of at the top. At the top we should have: What is the verbal literacy level of the target- population? What is its visual literacy level? What is its audial literacy level? What learning-type does it represent? What is the nature of the message in terms of its most effective transmittal for this type of students?

What display modes are most appropriate? What cost/effectiveness ratio obtains? What media availability is there? What writing (communicating) capacity is available? Clearly, we are a long way from being able to respond with any degree of accuracy to these basic questions. This, however, is no excuse for ignoring them. All I am asking is that problems be taken in their functional priority, and that communicators come to realize that they must become literates before they can take any decisions on the use of visual languages.

IV – CULTURE AND VISUAL LITERACY

1. The Tower of Babel

Doubtlessly, the verb is one of the rocks of the remarkable achievements of Western civilization. I submit, however, that Western civilization has been guilty of a crime of lèse-other-civilizations. Indeed, it has attempted to transplant its verbal culture to other cultures as a systematic technique of colonialism. By doing so it has hampered and distorted (in some case, beyond cure) the development of native cultures, some of which had, and still have, a lot to teach the world of the Great White Father. We have thus sinned through acculturating.

Joan Costa contends that not all objects are symbols (13). Perhaps she should have said: all objects can be symbols, but whether they are or not depends on the indivudual's and the culture's cognitive and affective experiential repertoires. (Jung would bring-in the collective consciousness repertoire.) I need hardly belabor the fact that signs and symbols are primarily culturally conditioned. If I needn't, then why should I spend the time trying to say that there are many visual languages and that they must be taught? The reason is simply that very few people are aware of the fact that visualization is primarily a societal phenomenon (second, of course, to being a biological phenomenon). The result of this general ignorance is that it is erroneously assumed that the image is universal. Put your course on slide-and-tape and you've got a universal teaching medium (all you need to do is get someone to translate the tape?). At ILO's International Advanced Training Centre we have had students (some 1,500 a year) from some 123 countries, and we are painfully discovering that it ain't necessarily so.

2. The message

Take the safety-film made in Europe for a certain African nation. We thought it was very funny to see a cartoon in which an Arab got a pot of paint on his head because he walked under a ladder. Strangely enough, the Arabs didn't think it so funny. In fact, they felt insulted, because no Arab would be so stupid as to walk under a ladder and get a pot on his head!

Take the slide presentation in which our Polish artist drew managers huddling over a conference table. What Asian or African wants to see white imperialists conniving around a table? We should have drawn Africans. But, then, Asians would not have been able to identify! We eventually had the bright idea of concocting an amorphous universal type, based on what we thought were deep ethnological and anthropological research of physical features. Result: nobody could find himself in those strange beings from Mars. What's the answer? Yet, these are easy problems to solve. They concern adaptation of contents to culture. A little preparatory thinking based on a good deal of knowledge of the different mores and psychologies of the peoples of the world, is all it takes.

3. The form

What is less easy to learn is the form, the style and the syntax of the "foreign" visual languages. Jean-Paul Gourevitch notes that: "Whereas written communication used to be identified with the product of acculturation from a dominating class which found in it its referents, its means of pressure and what it took to arm its 'heirs', today it plays essentially a registering and codifying role" (15). Why? Could it be that our verbal culture is also our Western idiosyncracy? Could it be that there are other ways of apprehending and expressing one's societal reality? And could it be that one of these ways is through visual apprehension and expression?

Jean-François Lacan wonders about the advantages of audio-visual aids in literacy (verbal, of course) campaigns in the Third World. He notes three main difficulties. One: the difficulty of decodification of the visual message by such peoples as the Africans and Maghrebians. This problem does not stem only from the image-sequencing as symbolic of real time. The presence of the same person in two successive images is not always connected to the identification of this person as subject of an action taking place continuously.

Two: the difficulty of relating the abstract and artificial pedagogical situation to the student's reality. Three: the inductive approach taken by the message is not always obvious to the reader. To go from an observed situation to an explanation thereof and end the lesson with a programmed instruction exercise does not necessarily follow the logical discipline specific to certain cultures. Finally, "one must stress that the audiovisual structure and that of the language are not isomorphic" (23).

4. Imagery

Ruesch and Kees draw our attention to the fact that climate, culture and particular social situations are reflected in different imageries which, obviously, condition communicative expression. They mention as an example that the Eskimos, being continuosly exposed to snow, have developed several concepts of snow: falling snow, snow on the ground, snow packed hard like ice, slushy snow and wind-driven snow (8). As can be expected, the Arabs do not have that many concepts of snow; as a matter of fact, they do not even differentiate between snow and ice. They do, however, have over a dozen words for camel and over ninety for lion.

Imagery reaches eidetic proportions in children. And children are a "culture" (or subculture) in their own right. To children images are reality. Children have short attention-spans and need to apprehend reality in gestalten. They perceive syncretistically and globally whenever the perceived shape is simple and strong; they perceive segmentally and pointillistically whenever the perceived shape is complex and weak. They need to relate forms to practical action-oriented behaviour; they understand form as events and series of forms as stories. The little child (under 7 years of age, according to Mialaret) can understand short sequences of a film, but is unable to grasp the succession of sequences. Towards nine the child does understand the succession of sequences but not their meaning. "Children and primitives, far from offering a 'naive' vision, apprehend through affirmative and simplified forms", remarks René Huyghe, of the French Academy (7).

Sex is "culture" – or, to satisfy the feminists, at least culturally conditioned in our male-chauvinstic world. Anne-Marie Thibault-Laulan carried out an extensive study on school children to ascertain their image-reading abilities and habits. She found, for instance, that boys have greater facility with synthetical relationships, and girls with chronological ones. Young ladies seem to have also greater ability to understand symbolic relationships than boys. In heterogeneous situations, boys are better at apprehending relationships between images. Perhaps, the author suggests, these results show differences in attitudes rather than aptitudes at reading visual messages (11). Attitudes are principally culturally conditioned; aptitudes are individual traits. The apprehension of shapes and colors ("There is no such thing as a 'natural' division of the spectrum", states V. F. Ray) and the capacity to abstract from perceived form, therefore, varies greatly with the species, the culture, the education, the age, the sex, the physical environment. (Not to speak of such obvious individual characteristics as differential color-vision and the state of health. Frank Riessman showed, for example, that "deprived children" need to have "the abstract constantly and intimately pinned to the immediate, the sensory, the topical" (28). This is a common observation made by clinicians working with emotionally or intellectually disturbed children. There is by now a rather voluminous amount of evidence to substantiate this statement.)

5. An ethnocentric creation

Sherman W. Selden states it very simply: "The picture is an ethnocentric creation" (27). He worked with African students and noted three picture viewing problems: visualizing three dimensions relationships, recognizing relative sizes, and overcoming unfamiliarity with man-made-objects.

I remember years ago I was called upon to help solve a problem in West Africa. The problem: in spite of every conceivable precaution and safety-education, the accident rate was still high in a large mechanical repair shop. Observation and testing soon showed that this particular tribe had little spatial-recognition ability, with the result that the workers got their hands mutilated in the machines. Since we could not change population, we trained the younger people in spatial recognition and gave other jobs to the older workers. Thus was the problem rather well solved. The drawings those young adults made, decorating their beautiful pottery, were all two-dimensional, as those of young children. It is not that they had not discovered the technique of perspective, it is that they visualized much of the real three-dimensional world in two dimensions. How would they have interpreted our conventional use of perspective in drawings, in photographs, in films?

Joan and Louis Forsdale found that Eskimos and African tribesmen often could not comprehend the three-dimensionality of the object represented in the two-dimensional flat picture, that only a minor detail might be recognized in a long film, that objects seemed to collapse in a panning shot. As Arnheim well remarks: "Some of these obstacles have been overcome in Western culture; others persist in our own children, unrecognized" (10). There is every reason to believe that space delimitation (such as the edges of the photogram and the ability to recognize depth cues in two-dimensional representations of three-dimensional reality), are but cultural conventions. Hard facts to accept for those born in the era of the poster, the comic-book and the polaroid picture!

United Nations experts in Botswana have reported to me the extreme difficulty they were having with the concept of verticality among trade apprentices. They just could not got the boys to hang a picture straight on a wall or to put a leg straight on a chair. Why? they wonder. Would it be because nothing is really straight in their environment? Would it be slackness due to the unacceptance of precision where precision is of little concern to them? Would it be a problem of spatial-recognition? As far as our problem of visual literacy is concerned: how would they view verticality in an image made by us, in our own visual language? And how would they translate verticality as they perceive it in their reality into visual language? We don't know, because we have not asked them. Yet, one thing is certain: they do not perceive the world visually as the man from Paris, London or New York and, therefore, their visual language will have to be learned by us if we are to communicate optimally with them.

Are they different from little children? Or from girls? Or from architects? Or from Picasso? And if so, what differentiates all these populations, these "cultures"? Whatever it is, we find expressed in visual expression. As we do, of course, in verbal expression.

6. The psychologist's and anthropologist's view

Segall, Campbell and Herskovits (1) studied the influence of culture on visual perception. They were concerned with the different emphases given by the psychologist (emphasis on process) and the anthropologist (concern for pattern and structure). In a research project tending to demonstrate cross-cultural differences in the perception of illusory line-drawings, they gave tentative explanations of these differences in terms of differing visual environments of cultural groups leading to differing visual inference habits that these environ-

ments reinforce. They stress that "visual perception is mediated by indirect inference systems." (The "enculturation" of Herskovits) (30).

We all know, as do social psychologists (such as Asch, Krech and Crutchfield, or Sherif and Sherif), that experience in terms of reward and punishment colors our vision of events, of objects and of the total field of affective apprehension. "Love is blind", goes the saying. So is hate. The problem is that perception is not only affective, it is cognitive and, more important, mediated through "our midbrain, our visual and associative centers, and our systems of incipient behaviour, to which almost all visual perceiving leads" (Murphy, 35). In consequence of which, the image of reality as it is processed by all these systems and affected by all these conditions, is bound to be quite different among different people. And since people's conception of reality is strongly conditioned by society, it is obvious that "seeing" is likewise culturally oriented. Hence, the variety of visual languages. Segall-Campbell-Herskovits say it this way: ". . . . . since a region of experience may be lexically differentiated in one culture but not in another, some stimuli are more codable than others and therefore more easily remembered". Or ". . . . . different people organize the world differently, in accord with cultural forces rather than in a manner dictated by its intrinsic structure" (1).

It should be obvious that an asphalt-dweller of New York, São Paulo or Tokyo has a much more "angular" view of the world than a farmer of the Ukraine or a fisherman of the Netherlands. Country people's environment is visually less confining and angularly structured than that of their city cousins. Tropical residents live outside whereas North Europeans or Canadians live by the fireside. This angularity of the visual field affects the visual attitudinal set which city-dweller develops. It affects his concept-formation and his total behaviour. It conditions his apprehension of form and his visual language.

D. N. Michael has remarked that "West European culture in general and American culture in particular stress the concept of closure. In the area of aesthetics and design, unbroken continuity (e.g. streamlining) and symmetry are emphasized. And among the ideal behaviour patterns favoured are those stressing task completing, both materially and temporarily . . . (while) students of the Navaho have long remarked on the Navaho 'fear of completing anything' " (36). Here then is another dimension to visual writing: our own anxieties and compulsions, many of which are characteristic of specific cultures. One thinks of the beautiful arabesques of Arabic calligraphy . . .

It is not enough therefore to espouse the rather simplistic theories of a Brunswik's probabilistic functionalism, in which he epitomizes his opinion of the functionality of vision by referring to "ecological cue validity" (37), a position taken, moreover, by Segall-Campbell and Herskovits, who state that "the visual system is functional in general", and "if human groups differ in their visual inference tendencies, it is because their visual environments differ, that is, the cues in their ecologies have different validities" (1).

We must take into account not only the nature of the stimulus, but the response of the organism to the stimulus, response which is conditioned by the plethora of factors I have been pointing out all along. Furthermore, we must be aware that "interpretation of visual data has to be learned" (1).

Need I say more to state that:

- the environment conditions the nature of visual apprehension;
- cultures and sub-cultures, therefore, develop their own visual languages;
- cultures which are not essentially verbally conditioned are likely to have developed greater facility and richness in visual communication?

V – VISUAL LITERACY AND DISTANCE EDUCATION

Distance education is "in", and for a long time to come. It is in because of further education, and because of mass-education, and because of satellite-transmitted education, and T.V. education, and Super-8 cassetted education, and dial-computerized education, and because of all sorts of education which are gestating in the brains of educators and technologists. Because the knowledge industry is about to be the No. 1 industry, even before the gun-and-bomb industry. A milestone in the story of mankind.

The fundamental problem of distance education is that it is very much easier to launch a satellite in space and equip it with color 3-D television and a computer-dial retrieval system and quadrophonic sound than to decide on the language in which the message should be written. Because educators are illiterate: they can only read one or two verbal languages and may be able to decipher the grossest messages in the basic visual language of their own culture. Because psychologists did not tell them how man learns. Because physiologists and neurologists did not tell the psychologists how man perceives. Because chemists and physicists are yet to figure out the organic structure of communication.

Distance education uses media which carry essentially the verbal message of Western man. Because Western man is only rediscovering visual language. He is only beginning to rewrite the grammar of the comic-book, which primitive man has been using since he wrote on cave-walls.

During the Second World War, I remember writing my first comic-book. It was not very comical: it was an instructional manual on how to build a DC-3, or at least parts of it. The second such manual taught young men how to pilot Piper-cubs. A later booklet instructed lucky Phinshavers how to use their electric razors. None of our "target populations" were unfortunate illiterates from Darkest Africa. As a matter of fact, one thing tied them together: they all

had learned (without knowing it) a basic Western culture visual language. They understood that the edges of photographs or cartoons did not mean the end of the field of reading; they understood that an electric shaver is not really as flat as it is on the paper-surface; they understood the dynamic symbolism of our arrows; they understood the stylization of funny cartoons; they understood the world in which our DC-3, or Piper-cub and our Philishaver evolved, because it was their world. And the verbal linguistic barriers of dear old little Europe and mighty America were crossed through this new esperanto.

Many years later I taught most successfully the nuclear theory to a class of six year old Mexican children. There were problems of language: they did not know how to interpret movement and direction from my arrows and little lines around the atoms; they did not understand what these strange shapes were on the T-V screen (perhaps because it wasn't a T-V screen, but a washing-machine peek-in window, and they had never seen a washing-machine); they reported that a tedious search through the sun-dried brush of Sonora failed to evidence any atoms. Yet, they passed with flying colors the first part of a College examination in physics. I am still wondering today whether I hit upon a group of little genii or whether our College students had been educationally short-changed.

In all these and many more "experiments" no verbal message was ever written, nor did any teacher mouth any word in explanation or as reinforcers of the image. In terms of learning-efficiency, the abstraction of verbal language could not have done better. As a matter of fact, it did a lot worse for the Philishaver, for example.

It is my contention, therefore, that we should stop looking at visual language as the poor relation of verbal language. Its particular genius is not in illustrating the verb, or in decorating the page, or in reinforcing the verbal statement. Its particular genius lies in its immediacy, its richness, its greater semantic stability, its ease of translation, its ability to communicate affective as well as cognitive information with much greater economy than words. Isn't that enough for us to learn it?

BIBLIOGRAPHY

Books and articles consulted and referenced in the text. Note that all quotations from non-English language originals were translated by the author of this paper; he assumes full responsibility thereof.

1. Marshall H. Segall, Donald T. Campbell and Melville J. Herskovits: The influence of culture on visual perception, The Bobbs-Merril Company, New York, 1966.
2. William J. Allen: Media stimulus and types of learning, in Audiovisual Instruction, January 1967, Washington, D.C.
3. Jean Mitry: Esthétique et psychologie du cinéma, Editions universitaires, Paris 1963.
4. Rudy Bretz: The selection of appropriate communication media for instruction: a guide for designers of Air Force technical training programs, The Rand Corporation, Santa Monica, California, USA, 1971.
5. Elements of visual literacy, Eastman Kodak Company, Rochester, N.Y., USA, 1968.
6. Gaye Manwaring: The design of audio-visual programmes, in Visual Education, December 1973, London.
7. René Huyghe: Formes et forces, Flammarion et Cie, Paris 1971.
8. Jurgen Ruesch and Weldon Kees: Non verbal communication, University of California Press, Berkeley, California, USA, 1972.
9. The Art of Photography, Time-Life International (Nederland) B. V., Amsterdam, 1973.
10. Rudolf Arnheim: Visual Thinking, University of California Press, Berkeley, California, USA, 1969.
11. Anne-Marie Thibault-Laulan: Le language de l'image, Editions universitaries, Paris, 1971.
12. G. Mialaret: Psychopédagogie des moyens audio-visuels dans l'enseignement du premier degré, UNESCO, Paris, 1964.
13. Joan Costa: La imagen y el impacto psico-visual, Ediciones Zeus, Barcelona, 1971.
14. Jacques Bertin: Sémiologie graphique, Mouton, Paris, 1967.
15. Pierre Oleron: Etudes sur le language mimique des sourds-muets, in Année Psychologique, 1952.
16. Henri Poincaré: Science et méthodes, Paris.
17. Immanuel Kant: Allgemeine Naturgeschichte und Theorie des Himmels, Sämtliche Werke, Vol. 2, Insel, Leipzig, 1912.
18. A. A. Moles: Théorie informationnelle du schéma, in Schéma et Schématisation, 1968, t., 1, pp. 24, 25.
19. George L. Gropper: Why is a picture worth a thousand words?, in AV Communication Review, 11:75-95; July-August, 1963, Washington, D.C.
20. Joseph K. Lonigro Jr. and A. John Eschenbrenner Jr.: A model for selecting media in technical/vocational education, in Audiovisual Instruction, November, 1973.
21. Derek N. Nunney and Joseph E. Hill: Personalized educational programs: which medium for which student?, in Audiovisual Instruction, February 1972.
22. Donald Harry Britt: An improved method for instructional development: learner types, in Audiovisual Instruction, April 1971.
23. Jean-François Lacan: Quelques questions sur l'emploi de l'audiovisuel, in Sonovision, Avril 1974, Paris.
24. Eric E. Heckscher: Learning styles: the psychology of individual differences, International Labour Organization, International Centre for Advanced Technical and Vocational Training, Turin, 1972.
25. George L. Gropper: Learning from visuals: some behavioral considerations, in AV Communication Review, Spring, 1966.
26. Jerrold E. Kemp: Which medium? in Audiovisual Instruction, December, 1971.

27. Sherman W. Selden: Some cultural limitations to visual media, in Audiovisual Instruction, January 1971.
28. Frank Riessman: The culturally deprived child, Harper and Row, New York, 1962.
29. Joan Rosengren Forsdale and Louis Forsdale: Film literacy, in Teachers College Record, 1966, Vol. 67, pp. 608–617.
30. M. Y. Herkovits: Man and his works, Knopf, New York, 1948.
31. V. F. Ray: Techniques and problems in the study of human color perception, Southwestern Journal of Anthropology, 8, 251–259, 24, 45; 1952.
32. S. E. Asch: Social psychology, Prentice-Hall, Englewood Cliffs, N. J., 1952.
33. C. W. Sherif and M. Sherif: An outline of social psychology, Harper, New York, 1948.
34. D. Krech and R. S. Crutchfield: Theory and problems of social psychology, McGraw-Hill, New York, 1948.
35. G. Murphy: Personality, Harper, New York, 1947
36. D. M. Michael: A cross cultural investigation of closure, in Journal of Abnormal Social Psychology, 1953, 48.
37. E. Brunswik: Perception and the representative design of psychological experiments, University of California Press, Berkeley, 1956.
38. E. Brunswik and J. Kamiya: Ecological cue validity of proximity and other gestalt factors, in American Journal of Psychology, 1953, 66.

Teaching by Telephone

A Two-Way Communication Mode in Distance Education

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In recent years the distinction between correspondence education and face to face teaching has become increasingly blurred. Correspondence systems are now using a mix of media, often including some contact between student and tutor, whilst conventional educational institutions are using various means to make courses available over a wide area. In the type of distance study where the correspondence and face to face approaches converge, the telephone is playing an increasing role.

An examination of telephone teaching systems in several areas of the world indicates that technical problems need not be obtrusive. However, this study also reveals that to date most such systems have been developed to extend classroom courses and that success in this venture depends on three factors, the simplicity and flexibility of the equipment used, the unattractiveness to the students of the available alternatives, and the provision of quality written materials.

These conclusions suggest that correspondence courses could use telephones most successfully as one element in the teaching and feedback system. Since a start in this direction has already been made by the Open University, the needs of this institution and the role telephones might play in meeting them are discussed in some detail.

ALL ROADS LEAD TO DISTANCE STUDY

The last five years have seen radically different instructional systems develop in a convergent manner particularly in the field of adult education. The correspondence movement has led to complex teaching systems, such as the Open University and DeVry Institute, in which written materials are only one element among several, whereas the tradition of classroom instruction has spawned a host of projects aimed at reaching people outside the classroom.

Both types of institution thus face the classic problem of distance study, which is to gauge the students' reaction to the instruction and answer the specific problems of individuals in a cost-effective manner.

Now if, as private citizens, we send a book to a friend and want to know how he enjoyed it, we ring him up. Although the distance study problem may not be quite that simple, the telephone can give significant help there too. The purpose of this article is to show how.

TELEPHONES AND GROUPS

In the 101 years since Alexander Graham Bell put together the first telephone in Brantford, Ontario, his invention has undergone vast technical development and yet has hardly changed at all from a psychological point of view. The overwhelming majority of telephone calls still involve just two people communicating by sound. This is not, of course, to belittle a capital invention; indeed, it is probably because the common telephone answers communications needs so well that the wiseacres can remark, 'The video-telephone is the communications technology of the future – and always will be'.

Nearly all correspondence schools use the telephone heavily on a one to one student to tutor basis. The DeVry Institute, to cite but one example, receives some 2000 student calls a day on its toll-free telephone service. However, in this article we shall be concerned with the use of telephones by groups of people, i.e. calls involving more than two people and usually more than two locations.

LOUDSPEAKERS AND CONFERENCING: TECHNICAL AND ORGANIZATIONAL CONSIDERATIONS

It will be useful to begin by distinguishing three ways in which telephone communication might be used by a group.

1) An individual at A converses with a group at B. Although no special telephone is required at A the group at B must have a telephone equipped with loudspeaker and microphone.
2) Individuals at A, B, C och D hold a discussion. This is a conference call. Each party can use a regular handset but equipment is needed somewhere to bridge th four lines together.

3) Groups at A, B, C and D hold a discussion. This is evidently a combination of (1) and (2) and requires special telephones in each location as well as bridging equipment.

We shall explore this last, and most general case because it subsumes the others. Any institution intending to use the telephone with groups on a regular basis must make several technical and organizational choices some of which, as we might expect, require a compromise between the technical quality of the system and its flexibility. Such decisions concern the telephone sets, the bridging equipment, and the telephone lines.

Telephone sets

No loudspeaking telephone (LST) can escape the problem (negligible in the regular handset) of feedback between speaker and microphone. To prevent feedback howl the microphone must be switched off when the speaker is in use and vice versa. Since doing this manually is somewhat fastidious most LSTs incorporate a voice-switch which automatically opens the line in favour of the louder voice. Clarke and Gale [1] have described this problem admirably and figure 1, taken from their article, portrays the voice-switch schematically as a 'decibel devil'. If this seems unduly anthropomorphic it is worth remark that the technical characteristics of the voice switch have a crucial influence on the naturalness of any conversation held over an LST.

A second constraint appears in conference calls. Most telephones, including LSTs, are not designed specifically for use in multi-party conference calls. In such calls the total background noise is the sum of the noise from all the lines and receivers involved. For this reason the sound quality of a conference call depends critically on the quality of the lines and sets used.

Now it is quite possible to design a telephone conference room with impeccable technical characteristics by both paying attention to the acoustics and fitting high quality microphones and speakers at strategic points in the walls and ceiling. However, whilst the construction of a series of such rooms might be appropriate for a large commercial firm with regional offices, it usually represents too great a loss of flexibility in an educational context. We shall see that the most successful and durable telephone teaching systems are based on the use of a portable LST or conference set that can be plugged in wherever a jack is available.

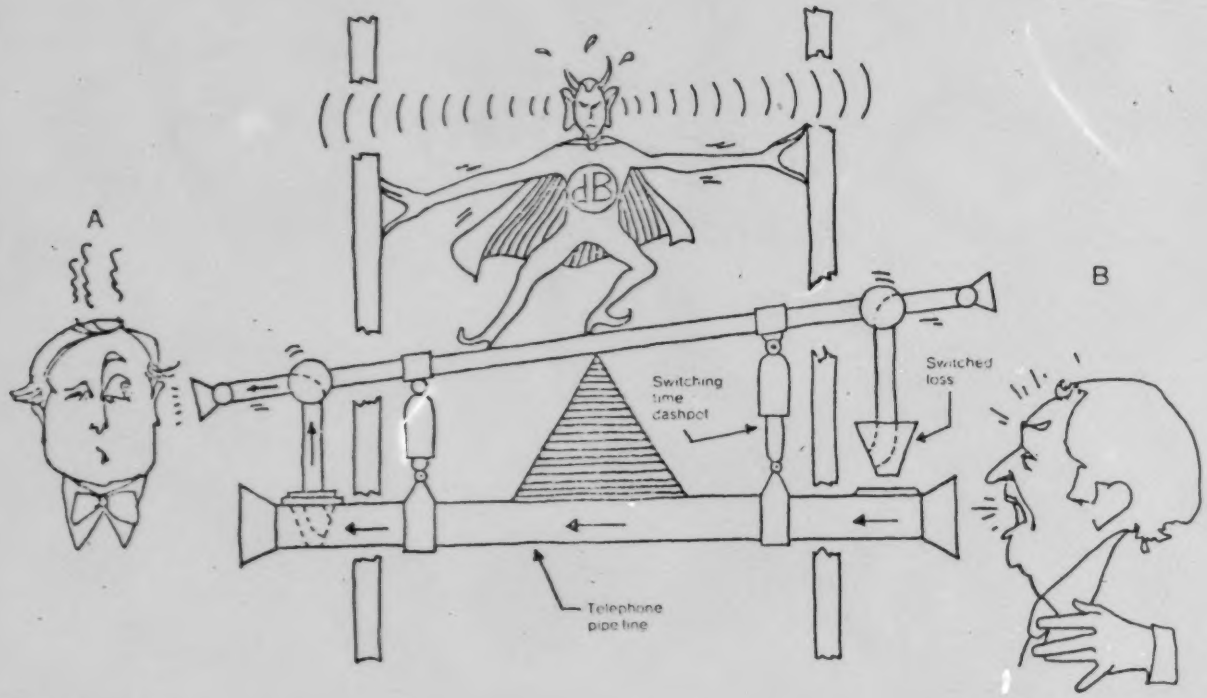

Figure 1

The voice switch, the vital element in a loudspeaking telephone, allows the voice of one talker at a time to be transmitted over telephone line. Here the action of the switch is illustrated by a mechanical analogy. The hypothetical dB devil samples the sounds produced at each end of the line and opens or closes the transmission channel to allow the voice of the louder talker to be transmitted. It also inserts 'switched loss' into the return path to prevent the feedback which causes 'howling'.

Bridging equipment

To be useful bridging equipment must provide amplification in all directions, but its design presents no technical difficulties. The availability of bridging equipment is in fact governed mostly by political considerations, and it is to be hoped that other countries will follow the example of the United States in requiring telephone companies to publish specifications so as to allow any equipment which meets these specifications to be joined into the network. Already several different US manufacturers are advertising conference bridging consoles.

This is important because the constraints on conference bridging are organizational rather than technical. Once an institution holds telephone conferences on a regular basis it becomes essential that the bridging equipment be located in the institution rather than at the telephone exchange.

Telephone lines

For conferencing uses, even more than for person to person calls, telephone lines must combine high quality with low cost. This is best achieved by using dedicated tie trunks where possible. Any institution considering telephone teaching will probably already have som dedicated lines to its regional centres, and one of the reasons for locating the bridging equipment in the institution is that it permits the use of these lines for conference calls.

Telephone teaching in action

Now that the main features of telephone conferencing have been presented in an abstract manner, it is worth while examining some real telephone teaching systems. Although the survey of telephone teaching around the world which the authors are conducting is as yet incomplete, it is possible to trace a broad outline of activity in this field.

A retrospective search on ERIC reveals that some fifty reports touching on telephone teaching were published in the US in the last decade. Plotting the number of reports against the year of publication gives a slightly skewed bell-shaped curve rising from no reports in 1967 to fifteen in 1970 and then falling off to six in 1973. One has the clear impression of yet another passing fashion in the use of technology in education.

However, this flurry of activity in the late sixties was accompanied by a process of natural selection. The fittest telephone teaching projects survived whereas those which could not adapt to changing conditions, in particular the disappearance of the Hawthorne effect which had been present at their birth, gradually fell into disuse. We shall describe some successful and durable projects first.

The Wisconsin Educational Telephone Network[2, 3)]

Appropriately, for it has always been a world leader in continuing education, the University Extension of the University of Wisconsin must receive or gold medal for telephone teaching for its Educational Telephone Network (ETN). In fact the ETN is only one of three ongoing telecommunications projects at the University of Wisconsin extension, the others being the Subsidiary Communications Authorization (SCA) which allows educational communications to ride piggy-back on the state FM radio signal, and the Statewide Extension Education Network (SEEN) which combines voice communication over the ETN with Electrowriters. SEEN was added to the system to meet the needs of Engineering Extention in 1970 but ETN itself, which we shall now describe, originated in 1965.

ETN is a huge telephone conferencing system which can link up to 210 specific meeting places in 100 Wisconsin communities. These meeting places are courthouses, clinics, libraries, offices, etc., each specially equipped. Until this year the equipment simply consisted of a loudspeaker and telephone handset. To talk back from a particular location a student simply lifted the receiver and spoke into it. In the last year, this arrangement has been replaced, at all 210 stations, by a specially developed portable unit, the Darome Edu-Com, consisting of a loudspeaker and four microphones. This unit plugs into a coupler provided by the telephone company and is very simple to use. Here again, the student who wishes to speak presses a lever on one of the microphones and talks into it. In view of the technical problems of automatic voice switching mentioned earlier it is interesting to note that one of the most experienced educational telephone networks finds manual switching perfectly satisfactory.

Obviously not all ETN stations are involved in every call. At the present time the network is in use 55 hours a week carrying some 34 courses which involve 50 instructors and over 600 students. The average conference lasts about 90 minutes and takes the form of a question and answer session between an instructor and some 100 students in around 45 locations. The students receive fuller written and visual documentation for these courses than would be the case for regular on-campus instruction.

Although we have concentrated here on ETN it is important to realise that ETN and SCA (the point to point FM radio system) are used together. The students already mentioned are linked on a telephone conference using the university's 400 station capacity bridging equipment and dedicated lines whereas another group of students receive the same course over SCA. If the SCA students have questions they phone into the studio and the question is carried live on both ETN and SCA.

The number of students involved in ETN-SCA courses in Wisconsin has grown steadily and a further large increase at the beginning of this year brought enrolments to over 30,000. The system is estimated to cost $0.14 per student hour in network production and operation costs (i.e. not including the costs of additional instructional materials).

Other systems

Another successful system on somewhat similar lines is the Statewide Continuing Education Network in Kansas which has been operating since 1970. This network now links 23 localities in Kansas, the equipment used at each station being the Western Electric 50A conference telephone. Twenty courses are on offer at present and enrolments number in hundreds. Similar systems exist in Missouri and in the city of Los Angeles and a 20 station network has been proposed in Iowa.

THE LESSONS OF FAILURE

Information on telephone teaching projects that have been abandoned is harder to come by. Perhaps the failure of technological innovation in education is so commonplace as to be unremarkable. If so it is a pity, for failure can be more instructive than success. In fact two systems which have been abandoned in the last year contain some lessons. For the sake of delicacy we shall call them projects A and B.

Telephone teaching project A was set up in 1966 to teach graduate courses to groups totalling about twenty students spread about three remote classrooms with about 300 miles between the farthest points. The classrooms were specially designed with built-in microphones and speakers and electrowriters were available. The commonest use of the system was the lecture with interruptions for questions and it was intended to reduce travelling by instructors. (Now that it has been abandoned, the instructors are again travelling every week sometimes in chartered aircraft.) Telephone teaching was dropped because it was not considered cost effective and one observer of project A has remarked that instructors were not prepared to make the changes in teaching methods that the system required.

Project B involves a multi-campus institution which has used a telephone conferencing system very successfully for administrative purposes for several years. In 1973, the smallest campus, which has to serve a sparsely populated area using peripatetic instructors, decided to try telephone teaching in two undergraduate arts courses. In this project classes totalling around 30 students in 2 or 3 centres were linked on 50A conference sets. Ordinary public lines were used and in the early days the conferences were set up by the telephone company operator although later on bridging equipment was installed on campus. The teaching format was that of a lecture with interruptions for questions. After 18 months use of the system stopped and the instructors started travelling again. The students said they preferred the instructor to be present in person and the instructors found that the university was not equipped for the production and distribution of the additional written materials which telephone teaching required.

These brief descriptions of both ongoing and unsuccessful telephone teaching projects enable us to identify some of the factors which favour success.

Size and institutional commitment

There is obviously a vast difference in size between the Wisconsin ETN and projects A and B. This is not to say that a small scale project is doomed to failure, but that a project which is marginal to the main activities of an institution and receives little support from it is severely handicapped. This of course touches on a classic problem in the implementation of new systems of various types. The cautious approach »do a series of small projects to prove the worth of the system to the organization« has probably condemned to failure many projects which would have been perfectly viable on if implemented on a sufficient scale.

The type of teaching carried out

Here we reach the crux of the matter. The telephone conference has proved unsuccessful when used as a direct substitute for a classroom lecture. Not only is the telephone more suited to a question and answer format, it also requires that students have access to fuller written and visual materials than is the case in classroom instruction. It is no accident the University of Wisconsin, with its long tradition of preparing materials for extension students, should have made a success of its ETN system. This also suggests that a correspondence institution, since it already provides quality written materials, could use telephone conferences successfully as a two-way communication mode.

Technical quality

Since, of the projects described, project A probably attained the highest sound quality, we may conclude that once sound quality is adequate, as for instance in the ETN system, it is not worth incorporating further refinements if they lead to loss of flexibility. Resources can be applied more effectively elsewhere in the system (e.g. in producing written materials).

The availability of alternatives

It is also worth remarking that telephone teaching prospers where there are no obvious alternatives. In projects A and B the instructors could give the courses by travelling and the students were accustomed to this. In the case of the Wisconsin ETN this alternative is simply not available given the number of localities involved.

TELEPHONES AT THE OPEN UNIVERSITY

Having described the technical features of telephone conferecing and examined some existing systems, we shall now consider the role that telephones could play in a major correspondence teaching institution. We shall take as an example the Open University, which has already taken some steps towards a greater use of telecommunications in its

activities. The Open University teaching system is sufficiently well known to require no long description here. Its major component is the correspondence element to which is added television and radio broadcasts, summer-schools, and face to face tuition in study centres. At present, 1975, the university offers 85 courses which make up a total of some 40 full credit equivalents.

Many courses have an enrollment of several thousand, but some have only several hundred. Even though the number of students accepted by the university is in a few years time likely to increase even more to a projected total of 72,000, it is likely that, as the number of courses and half courses increases too, the number of students on some courses will fall to a rather small total. The university is nevertheless committed to providing a wide range of courses, especially at higher levels, so that students may concentrate on majoring areas if they so wish.

As it has developed the Open University has encountered both administrative and tuition problems which could be partially solved by telephone conferencing.

Administrative problems

The university is administered from a central complex at Walton Hall and from 13 regional offices around the country. The central academic and administrative staff at Walton Hall are complemented by a substantial number of regional academic and administrative staff in the regions. The university is run on democratic lines with each academic being a member of Senate and of his appropriate Faculty Board. These have a vast number of sub-committees, and in an institution still innovating rapidly, a large number of working groups. Regional staff are fully integrated into these activities and the travel demands are therefore often onerous. Telephone conferencing seems to be a partial solution to the expenditure of funds, time, effort and paper, at least on those meetings which require formal decisions or where there is unlikely to be extended discussion. It is recognized, however, that telephone conferencing will not and probably ought not replace all face to face meetings even for subgroups.

While some record keeping functions and administrative decision making procedures are carried out at Walton Hall, for instance marking of computer-marked assignments, summer school allocations, fee records and so on, the regions also carry out certain administrative functions such as arranging for examinations, keeping in touch with students individually and monitoring their progress.

All these activities need to be co-ordinated and result in a vast volume of documents and records being exchanged between the centre and regions as well as heavy usage of telex and telephone. The need to convey information to so many regions, often simultaneously, and to receive replies from each, suggests that a telephone conference facility may be useful for this purpose as well.

Tuition problems

Two problems have emerged in the provision of face to face tuition. The first is that of a widely scattered student population on the smaller courses, the second the difficulty experienced by many students of attending the study centres where tutorials are held. The university has 260 study centres dotted around the country, but they are obviously more concentrated in the urban areas, and students who live in the remoter countryside may have to travel long distances and this may be exacerbated by poor transport services. But even in the urban areas such as London, it is not uncommon for students to take well over an hour to get to a study centre and at a cost that is not negligible.

There are also many other reasons for inability to get to a study centre, such as night shift work, physical disability, difficulties in finding someone to care for children, and often just sheer fatigue after a hard days work. About half the student population do not attend the tutorials, which are optional, regularly. Some students can cope without them, but there are disabled and housebound students who miss the support they provide. It was to assist these students that the university initiated its teaching by telephone project. This project experimented both the conferencing and the loud-speaking uses of the telephone.

The conferencing project has been carried out in London for almost two years involving about a hundred students. The students were enrolled on a variety of courses in all faculties and were recruited for telephone teaching because they were unable to attend study centres for some reason. Some were disabled, others found the travel irksome or difficult, others were on courses where the low student population made face to face tutorials prohibitive.

Audio-conferencing has also been used for briefing part-time staff and for self-help groups, that is, groups of students on a course who wish to keep in regular contact but who find the extra travel onerous. Some self-help groups have continued throughout the year with discussions on the course units, the TV and radio programmes, the assignments, and perhaps to benefit from some particular expertise that one or other of the participants has to offer in relation to the course. On a technology course for instance, it is often found that a least one of the students works in the particular field, and his experience can be valuable to the others.

Students say that these calls help them to keep pace with the course deadlines and the course units. Participants have to be disciplined into not speaking all at once. The subject under discussion should not be too far-ranging and should be well-prepared. Most sessions take an hour, which is long enough to cover much ground without leading to excessive fatigue. Experience gained thus far shows that participants, both students and tutors, have to be introduced into the technique if they are to make the most of it. Even then, there is an improvement in the teaching situation with each experience until everyone is at ease and accepts psychologically the limitations of

non-visual communication. A tutor has written, "Telephone teaching is immensely taxing. One requires intense concentration and one must not lose the thread of what one is saying while making sure that the students participate fully. It is often helpful to use ordinary single telephone calls with students, especially the blind, for a preliminary discussion of the topic. Telephone tutorials are highly 'condensed'. I do not make students feel that they are obliged to ask questions, they can merely listen. I have no discipline problem since I tend to go round the ring allowing each person to contribute at whatever length they wish, which means that some students who have some special expertise hold forth for some time. On the other hand a certain amount of cross talk is quite feasible. Strangely enough a social unit emerges fairly soon and the last five minutes is usually set aside for informal chat."

Another tutor working in the group situation, stresses the need for a chairman whose role would be to dethreaten group silences, to indicate to the distant tutor that students feel a question is unreasonable when their expressions show this and to identify individuals by name to create better rapport. The tutor needs to use signals like "do you agree?" "anyone not understand that point?"

The use of loudspeaking devices has been more problematical. The British Post Office Loudspeaking Telephone, the LST4, was designed for a businessman's desk and not for group work, so its range of reception is small, and the normal volume often inadequate for a seminar room. An even greater problem is presented by the clipped speech which results from the lag in voice switching at the beginning and end of sentences. A solution has been found in the use of extension roving microphones and speakers, though even these have not been completely successful in a large acoustically hard room. The problem becomes even more acute in the case of a faint trunk call, or when the unit is linked into a conference call circuit where there may be volume problems.

In the London region, these devices have been installed in four study centres. They have been used for trunk call tutorials with writers of the correspondence material at Walton Hall, and with academics living in the London area speaking from their homes. This is obviously very convenient for the tutors since it saves travel. But teaching by telephone is very taxing in the degree of preparation required and the concentration needed to keep the discussion moving. There is no scope for any of the tension releasing actions normally resorted to by lecturers, nor can there be long pregnant pauses, and the lack of visual cues means that the tutor must keep up the flow of talk endeavouring to obtain responses from the students by direct questions if necessary. In most cases, the member of the part-time staff normally attached to the group has been present with the students to set up the apparatus and encourage participation.

One useful application has been in the science foundation course, where the tutors are often not equally conversant with the four separate disciplines in the course. On the other hand all the expertise needed is invariably available among the staff within the cluster of four study centres. A tutor at one centre can therefore take care of his own group first, and then phone through to another centre and tutor the group there, and so on. In this way a cluster of four centres can spread expertise without breaking continuity of contact between the tutors and their own groups, and without additional travel. In the coming months efforts will be made to link housebound students to tutorial sessions at the study centres by means of the loudspeaking equipment. The students listening at home can either use the conventional handset or various kinds of headsets can be substituted for greater comfort. This ought to break down what may be an overwhelming feeling of isolation.

Loudspeaking devices of one kind or another have been installed in a number of remote study centres in other regions. There is the island of Jersey, for instance, and mid-Wales, where access is often difficult and student population is low in number. An obvious future extension is to the remote islands around Scotland and some of the far-flung districts in the north. Normally when students from these areas wish to attend a tutorial, they have to travel to a main study centre a considerable distance away and involving an overnight stay. The total costs of fares and hotel can be considerable, and although this is the students personal responsibility, the university must take it into account, and it is the overall cost that must be balanced against the costs of loudspeaking teaching. Distance teaching by telephone will become increasingly necessary on small population courses where specialist tutors are not available locally in the more far-flung areas of Britain.

It is hoped that when the system has been perfected, broadcasters on television and radio will stand by their telephones to hear live feedback from students at study centres. Since all the broadcasts are 'canned' the broadcaster can take the call in the comfort of his home. Furthermore many of the programmes are cassetted and can be played at the study centres for revision purposes. The students could then phone the broadcaster with their queries and seek further information from him.

It has been frequently suggested that people cannot learn effectively as long as the medium used obtrudes too obviously between tutor and student. This happens to a certain extent in teaching by telephone where the student is sometimes excessively aware of the presence of the device which then interferes with concentration on the teaching. But half the Open University students are either home based or remote, and they are often willing to put up with the crackles and squeals of the telephone if it saves them time and money.

A POSSIBLE COMMUNICATIONS NETWORK

During the teaching by telephone project, conference calls have been set up by the telephone company (Post Office) operator using, where necessary, ordinary public long distance lines. The project is judged sufficiently successful to merit the setting up of a university telephone network in a systematic matter. This network would run from the centre at Walton Hall, to the regions, to the part-time tutors, to the students. Although this net is short-circuited at various points, this is the main linkage system for the three elements of the total system for academic work, decision-taking and administration. (We should point out that both part-time staff and students have access to the main decision-taking bodies by direct representation.)

With perfect telephone equipment we could visualize a system of communications as in figure 2. Such a system would involve.

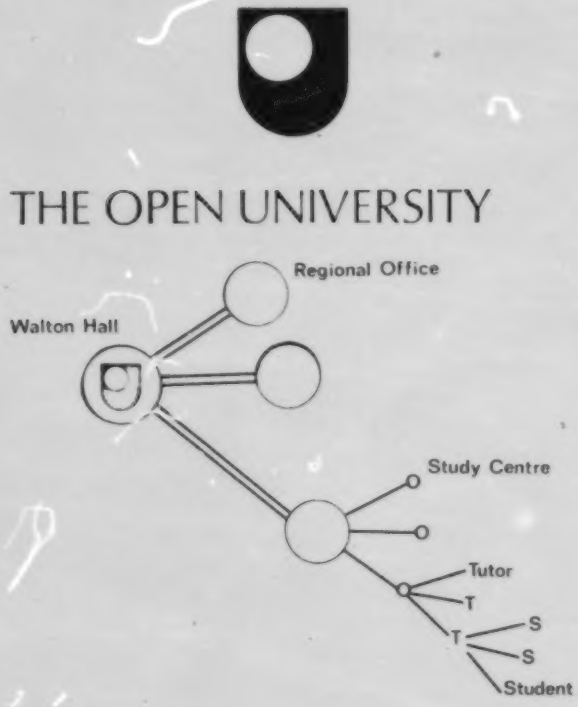

Figure 2

A possible communications network for the Open University.

1) A bridging console at the central campus at Walton Hall on which administrative teleconferences involving the thirteen regional offices could be set up. Conference telephone sets would be required in each regional office and, for convenience in several rooms at Walton Hall. The cost of a dedicated line to each region should be evaluated where such lines do not already exist. This part of the system would closely resemble the very successful administrative conferencing system at the University of Québec, Canada.[4]

2) Bridging consoles at each regional office. This would be used for:
   a) Conference calls involving tutors at home (or at work) using regular sets.
   b) Conference calls involving students at home using regular sets.
   c) Conference calls involving study centres using loudspeaking or conference telephones.

Although none of the conferences organised from Walton Hall or from the regional offices is likely to involve more than 15 stations, the capacity of the bridging consoles should take into account likelihood that different groups will wish to hold conferences simultaneously. The experience of the University of Quebec is that the conferencing habit spreads rapidly once conferences are easy to set up.[4]

Advantages of network

A feature of all successful educational telephone networks is that the institution can set up calls directly without being obliged to go through the telephone company for every conference. The institution's responsibility for operating the system facilitates the identification of problems and, since such systems generate significant new traffic for the company, produces a good working relationship between company and institution. Experience elsewhere indicates that such a network at the Open University is likely to be highly cost effective.

CONCLUSIONS

Our study of the educational use of telephones has indicated that telephone conferencing can solve some important two-way communication problems in correspondence education. The problems posed by the implementation of telephone teaching are political, organizational and psychological rather than technical. Good equipment for telephone conferencing exists, although national rivalries have prevented the development of an international market. It is to be hoped that the impetus to telecommunications development provided by the energy crisis will allow the best equipment to cross national boundaries, and this conference might wish to make a recommendation along these lines.

REFERENCES

1. Clarke, W. and Gale, J.: A New Look at Loudspeaking Telephones, Telesis, Fall 1973, pp. 79–84.
2. Parker, L.A.: Educational Telephone Network and Subsidiary Communications Authorization: Educational Media for Continuing Education in Wisconsin, Educational Technology, February 1974, pp. 34–36.
3. Parker, L.A.: ETN . . . A Way Not to Travel, Telephone Engineer and Management, August 1974, p. 62.
4. Daniel, J.S., Fortier, J. and Simard, P.: The Use of Audio-Conferences in University Teaching and Administration. Proc. 1974 International Conference on Frontiers in Education, IEE London, pp. 70–73.

The Integration of Distance Education with other Methods of Learning

The Planning of Target Oriented Distance Education in Advanced Professional Training

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This paper describes a target oriented decision model for distance education. On the basis of target analysis, target group analysis, and resource analysis, the appropriate educational organization model and teaching methods are selected, tested, and adjusted if necessary.

The possible modes of integration of distance (correspondence) education and supplementary lecture periods lead to eight different, standardized integration models, which are also described in the paper. Finally, some criteria for evaluation of the integration models are proposed.

The use of distance education in advanced professional training is becoming more general in many fields in Finland. Markkinointi-instituutti (The Institute of Marketing, for which the writer acts as a planning expert) has been a specialized training institute, partially based on distance education, for 45 years, with approximately 5,000 students annually studying about 20 different courses. The development of the institute's educational activity is carried out in project form. The main project of the development is the creation of TARGET ORIENTED DISTANCE EDUCATION, the main features of which are outlined below.

Markkinointi-instituutti uses distance education (correspondence education) as its main method but has had to integrate other supplementary teaching methods into it. Thus the analysis of the effect of integration is one of the main problem groups in the planning of educational activity.

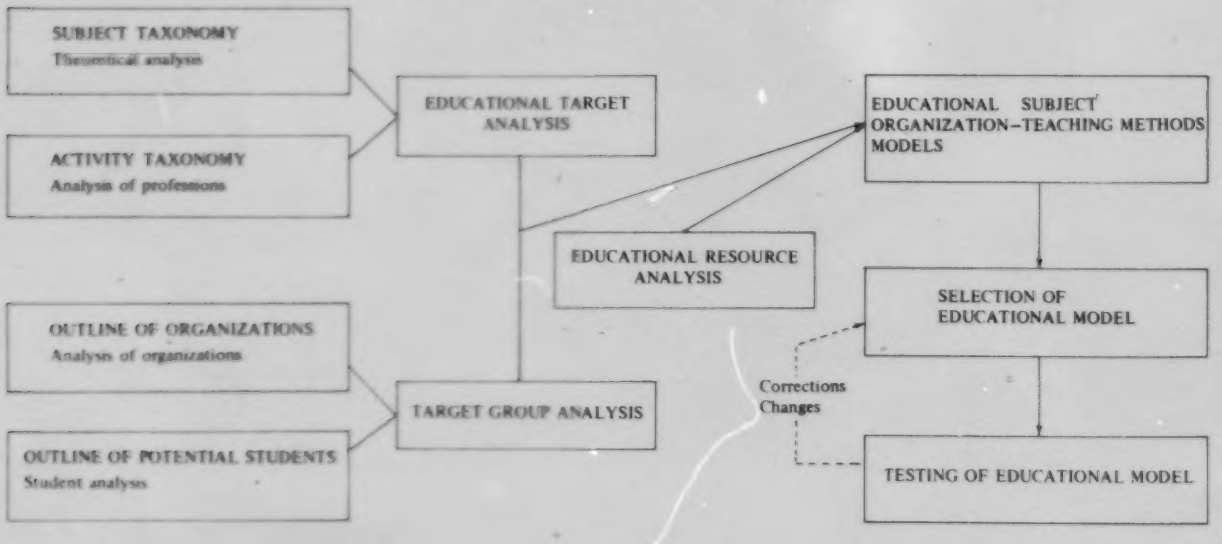
TARGET ORIENTED DISTANCE EDUCATION

Target programmed distance education can be based on the following:

1. Clear targets are set for the education.
2. The target group must be known.
3. Learning capabilities of target group must be known.
4. Educational resources are estimated.
5. Suitable method of distance education is selected.
6. Results achieved by the method must be tested.
7. The method is corrected or changed where necessary.

On this basis the target oriented decision model of distance education (fig. 1) has been laid down. The headings of the model will be commented on subsequently.

A TARGET ORIENTED DISTANCE EDUCATION DECISION MODEL



SUBJECT TAXONOMY – Theoretical analysis

Taxonomy means the systematic classification on the basis of a certain criterion or certain criteria. Subject taxonomy is sought with the aid of theoretical analysis by systematically classifying training areas, such as e.g. marketing.

ACTIVITY TAXONOMY – Analysis of professions

The next aim is to outline the activities of training areas with the aid of analysis of professions. During the first phase activity taxonomy is created in a two-part report form:

a) the students of the course who are expected to report, with the aid of a standard form, on:
   - job specifications
   - targets concerning the job and expected changes
   - self-felt need for development
   - self-felt lacks, work stress, difficulties at work

b) the employers of students who are expected to report, with the aid of a form, on:
   - estimate of need for development of the student in question
   - plans concerning the education of the student in question
   - needs concerning education

During the second phase a more extensive analysis of selected professions is carried out.

EDUCATIONAL TARGET ANALYSIS

In a grid subject and activity taxonomy arrive at a combination taxonomy of requirements (e.g. requirements 1-5) on the basis of which educational targets can be set for each target group:

Activity taxonomy

Subject taxonomy	Job X	Job Y	Job Z
Subject A	1	3	0
Subject B	5	3	1
Subject C	3	2	5

On the basis of this combination taxonomy the various combinations according to which the educational activity, i.e. courses, and examinations should be organized can be found. What is more, finding suitable combinations rationalizes educational activity considerably since the courses leading to various examinations can be organized on a module basis and a certain educational module can be given in the same form and at the same time to a course preparing students for several examinations.

OUTLINE OF ORGANIZATIONS – Analysis of organizations

The outline of organizations has many different types of target. They are in part outlined statistically, e.g. from the point of view of location and labour questions. Organizations are partially analysed from the point of view of their present and future educational needs. Part of the target is to clarify separately the need for specific commission education.

OUTLINE OF POTENTIAL STUDENTS – Student analysis

Student analysis is equally varied. In addition to the estimation of potential student numbers it also includes the clarification of students' educational capabilities:

- previous studies
- financial capacity
- time
- motivation
- attitudes and habits, capabilities, hobbies
- age and sex
- geographical location
- family relationships

Student analysis is carried out in the form of questionnaire research.

TARGET GROUP ANALYSIS

Those student characteristics which are of importance from the point of view of the organization of education can be specified with the aid of organization and student analysis.

EDUCATIONAL RESOURCE ANALYSIS

Once educational targets and target groups have been analysed educational resources are analysed so that suitable educational organization is achieved. Resource analysis covers the following points:

- financial resources
- accommodation resources
- educational material production resources
- educational staff resources
- time resources
- educational services resources, e.g. computer, library etc.

EDUCATIONAL ORGANIZATION MODELS – SUBJECT TEACHING METHODS

On the basis of educational target, target group, and educational resources analysis the optimal educational organization model suited to each educational form (examination) is sought. Here

analysis results operate as selection criteria on the basis of which the selection between various educational possibilities are made. Thus various types of distance education, and the educational methods suited to these, come into question. Decisions have to be made in the following sectors:

ACTUAL DISTANCE (CORRESPONDENCE) EDUCATION		SUPPLEMENTARY EDUCATION (LECTURE PERIODS)
Subject composition		Subject composition
Educational media		Educational media
Educational level		Scope
Standard of visualization		Duration
Scope		Division
Duration		Motivation methods
Student Guidance		Observation of results
Motivation methods		
Observation of results (supervision)		
Timetable		

INTEGRATION

DISTANCE EDUCATION MODELS – ORGANIZATION

The integration of the above factors results in the following chart which includes initially 8 models. The target is to reach a standardization in basic distance education models so that a given basic model can be recommended when considering certain educational needs.

TESTING OF EDUCATIONAL MODELS

The degree of integrated supplementary education in the above presented educational models varies considerably. The decisions to connect supplements with distance education should be reached by testing the effect or advantages of supplementary education and expense factors on the basis of the following pre-determined criteria:

1. Results of education
2. Motivation of study
3. Educational appeal (image)
4. Didactics
5. Financial and social status of student
6. Status of educational institute

DISTANCE EDUCATION MODELS	DISTANCE EDUCATION	SUPPLEMENTARY EDUCATION	EDUCATIONAL MEDIA	TASKS	STUDENT GUIDANCE	OBSERVATION OF RESULTS (EXAMINATIONS)	TIME-TABLE	EXAMINATIONS
COMPUTER I PROGRAMMED MODEL	Introductory period	Examination and lecture periods	Written, AV	Selection	Computer	Computer	Free	Final examination
	Basic period 1 . . . N	1 . . N standard AV	Written, AV		Computer, cassette	Computer	Free	
II SEMINAR MODEL	Introductory period	Initial seminar	Literature			Expert instructor	Bound	Final examination
	Basic period	(Intermediate seminar)	Literature				Bound	
	Final period	Final seminar	Literature				Bound	
III PROGRAMMED MODEL	Introductory period	Examination and lecture periods	Written, cassette	Free selection,	Teacher correction + computer	Teacher correction + computer	Bound	Final examination
	Basic period	Case practice		Cases,			Bound	
	Final period	Lectures, group work		Report			Bound	
IV CONTINUAL EDUCATION MODEL	Continual information, newsletters	Supplementary instruction	Written, cassette, AV				Free	Attendance certificate
V CORRESPONDENCE COURSE MODEL	Introductory period		Written, cassette,	Free selection	Computer, Teacher correction	Computer, Teacher correction	Bound	Marks
	Basic period		AV	Cases,				
	Final period			Report				
VI ON THE JOB EDUCATIONAL MODEL	Introductory period	On the job education	Written, cassette, AV	Free selection, Cases, Report	Computer, Teacher correction		Bound	Marks
VII CONTACT EDUCATIONAL	Company material	Company visits, Personal contact	Written, cassette, AV				Bound	Attendance certificate
VIII WORKSHOP	Workshop material	Workshop	Written, cassette					Attendance certificate

Part 3

Distance Education and the Open Learning Trend

Planning and Administering a University Off-Campus Academic Programme in a Plural Society

A Malaysian Case Study

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This paper deals with the efforts made by a young university to introduce, develop and administer an off-campus academic programme. The main objectives are (1) to provide a university education for adults who are prevented from engaging themselves in full-time studies, (2) to redress the imbalance in educational opportunities between economically favourable and less favourable areas and (3) to meet the increasing demand for high-level manpower to accelerate national development.

The paper is divided into three main parts. Part I deals with constraints and available resources. Part II attempts to describe the measures adopted to enlist the support of a 'reluctant' staff who are already overloaded with on-campus teaching commitments. It continues to explain how the twin constraints of shortage of funds and bureaucracy are overcome not by the conventional methods of submitting results of a feasibility study for approval but by taking the calculated risks of launching the programme first and then by its success and the support of the public win the endorsement of the Ministry of Education and the Treasury of the Central Government.

The delivery system, course structure, admission requirements and examination system are described in part III of the paper which concludes with some comments on the need to develop a new breed of education entrepreneurs to launch new programmes in developing countries.

INTRODUCTION

Malaysia, as many other developing countries in South-East Asia, is in the seventies confronted with an unprecedented demand for university education. The pressure of this demand is the result of three main factors: firstly, the explosion of aspiration among the people since the achievement of independence by Malaysia in 1956; secondly, the demand for high-level manpower to accelerate economic, social and political development of the country, and thirdly, the rapid expansion of primary and secondary education which in turn exerts relentless pressure for places in tertiary institutions of learning.

Until 1969 when a new university, the University of Penang, was established on the island of Penang situated off the north-western part of Peninsular Malaysia, there was only one university, the University of Malaya, located in Kuala Lumpur. However, between 1969 and 1973, in addition to the University of Penang (renamed Universiti Sains Malaysia for political reasons), three more universities were established: (1) Universiti Kebangsaan (National University) using Malay as the sole language of instruction, (2) the Agricultural University and (3) the National Institute of Technology.

In spite of the increase in the number of universities, more than fifty per cent of students qualified to enter an institution of higher learning were not given places in 1974.

In 1971 Universiti Sains Malaysia took the unprecedented step of providing an off-campus academic programme leading to degree awards for adults not less than twenty-three years old who for one reason or another are not able to engage themselves in full-time study at a university although qualified to do so.

AIMS AND OBJECTIVES

The main normative aims of the programme are:

(1) to enhance the productivity of those who are already in employment by up-dating their knowledge and skills,

(2) to redress the imbalance in educational opportunities between economically favourable and less favourable areas within Malaysia,

(3) to meet the increasing demand for high-level manpower.

The operational objectives may be summarized as follows:

(1) to provide a diversified programme of studies to enable off-campus students to obtain a standard of academic excellence similar to that required of on-campus students,

(2) to devise new approaches to teaching and learning that can overcome partially or fully the problem of distance between place of residence and employment on the one hand and place of instruction on the other,

(3) to organize annually a three weeks' intensive course (a) to enable off-campus students to meet each other and the academic staff, (b) and to supplement learning by correspondence with face to face instruction.

CONSTRAINTS AND RESOURCES

A sound approach to educational planning must take into account the constraints and the resources available before strategies could be formulated to achieve defined aims and objectives.

CONSTRAINTS

(a) Balance of ethnic groups

In the case of Malaysia which has a multi-racial demographic structure comprising 53 % Malays, 35 % Chinese, 11 % Indian and 1 % consisting of other races such as Eurasians and Europeans, the student population catered for by the off-campus programme must reflect the ethnic composition of the country. Owing to historical reasons, the Malays have generally been among the educationally handicapped component of the population and hence positive discriminatory measures have to be devised to ensure that an increasing number of Malays are given places in order to redress the imbalance that exists between the proportion of Malays and non-Malays in institutions of higher learning.

(b) Geographic distribution

Politically Malaysia is a federation of thirteen states. When Universiti Sains Malaysia was established in Penang, the administration of the State was in the hands of an opposition party. Hence, for political reasons the original name of the university, the University of Penang, was changed to Universiti Sains Malaysia to give it a national character. It is therefore important that in the annual intake of off-campus students, the composition must also reflect fair distribution of students from each constituent state.

(c) Lack of library facilities

Unlike the more developed countries, there are very limited public library facilities outside the two major cities of Kuala Lumpur and Penang. A well-stocked library is the nerve centre of any institution of higher learning. Students living away from Penang and Kuala Lumpur have no easy access to the two university libraries. This is a serious constraint which must be taken into consideration when designing courses and assignments for off-campus students.

(d) Lack of qualified tutors

In Britain, because there is a fair distribution of universities and other institutions of higher learning all over the country, study centres could be established where students could be given additional support in the form of tutorials by part-time tutors recruited from the local or regional universities or colleges engaged in tertiary education. In Malaysia, four of the five universities are situated in the capital city of Kuala Lumpur and the other one in Penang. Outside these five universities, it is well nigh impossible to identify academics with the necessary qualifications and experience to teach the wide range of courses offered. Even within the university, there are still posts unfilled and so the teaching load of the academic staff tends to be heavy. There is therefore no certainty as to how the staff will react to a new programme.

(e) Distance

Since Universiti Sains Malaysia is the only institution of higher learning providing and administering the off-campus programme, it has the sole responsibility of keeping in touch with students scattered all over the Federation from within the city of George Town in Penang to as far as Kota Kinabalu in Sabah situated in the north-eastern part of the island of Borneo and separated from Peninsular Malaysia by the South China Sea.

(f) Language of instruction

With the increasing use of Malay as the language of instruction in the school system, there will be an increasing number of off-campus students who are more proficient in the use of Malay than English. It is envisaged that increasing demand will be made by such students to have instructional materials provided for them in the Malay language. Meeting the demand would entail translation of lectures into Malay. Not all lecturers are bi-lingual. Translation of lengthy instructional materials is also time-consuming. Yet if the present imbalance in the ratio between Malays and non-Malays is to be redressed, the problem has to be overcome.

AVAILABLE RESOURCES

To ensure the viability and feasibility of the off-campus academic programme the following identified resources must be expoited to the fullest.

(a) Resource personnel

Support of the academic staff of the university is essential. Not all academic staff members would like to be involved in teaching off-campus students. Teaching commitment demands initially long hours of preparation of instructional materials which must be precise, concise and interesting to read. In the absence of face-to-face contact, lecturers must be able to predict difficulties and hence the instructional materials must be so structured that the students can comprehend without much difficulties the order and logic of development. Academic staff must be persuaded and motivated to participate in the programme. To ensure an equitable distribution of work-load and more important still, to safequard standards, the University Authorities agreed that both on-campus and off-campus students must follow the same courses, taught by the same staff and sit the same examinations.

(b) Ministry of Education and the State Departments of Education

Higher education is an integral part of the overall national system of education. In Malaysia, all universities are financed by the Central Government through the Ministry of Education. Few educational programmes could be successfully implemented without the support of the Ministry of Education. It is therefore essential to enlist the co-operation and support of both the Ministry of Education and the directors of the State Departments of Education if the programme is to be viable.

(c) School and other public agencies

The teaching of the natural sciences, namely physics, biology and chemistry, requires the use of laboratories for practical exercises. In the main towns of Malaysia there is a number of sixth form schools with reasonable laboratory facilities which could be used as centres for the off-campus students. Similarly book-clubs are found in several of the towns in the different states of the country. The support of these institutions of learning and agencies is obviously necessary to assist in the implementation of the off-campus programme at the grass-roots level.

(d) The mass media

In launching and sustaining a new academic programme, the support of the mass media – newspapers, radio and television – is useful initially to keep the public informed of the purpose of the programme, admission requirements and course structure and subsequently to report on progress and developments. The off-campus academic programme must be seen as a form of continuing education that can provide motivation to every adult who wants to improve himself or herself to cope with changes.

(e) Finance

Financial provision for education at all levels is the main responsibility of the Central Government. The Treasury and the Ministry of Education have to be convinced of the cost benefit of the programme and that the cost per off-campus student is lower than that of the on-campus counterpart. It is hoped that once the programme is firmly established philanthropic foundations and the wealthy section of the community could be induced to contribute financially to further enhance the quality of the programme.

FORMULATION OF STRATEGIES FOR IMPLEMENTATION

At the initial stage there was uncertainty on how the programme was to be implemented. Three alternative methods were proposed.

The first is to provide the students with syllabuses of relevant courses of studies and reading lists and allow them to sit the same examination as the on-campus students. The off-campus students are to seek personal tuition themselves from qualified tutors. The university acts purely as an examining body, a function very similar to that of the University of London.

In view of the lack of qualified tutors outside the university in Penang and those in Kuala Lumpur and also of the absence of public libraries in most of the Malaysian towns, this method does not seem to be satisfactory at all. It is unrealistic to expect off-campus students in Malaysia to be able to study successfully on their own in spite of their maturity without some form of help and guidance. If this alternative is adopted, it can be envisaged that the rate of failures will be so high that expenditure of already limited funds will not be justified.

The second alternative is to provide tuition through extra-mural or extension departments. Separate academic staff are to be employed to do the teaching. The staff of the university may have little or no responsibility in teaching the off-campus students unless they choose to be involved as part-time tutors. Acute shortage of qualified staff both within and outside the university constitutes too severe a constraint. This second alternative does not therefore seem to be feasible.

The third alternative is to involve the entire academic staff of schools that can offer courses to off-campus students to be responsible for teaching. It has to be explained that Universiti Sains Malaysia is structured on a school instead of the traditional faculty basis in order to facilitate multi-disciplinary and interdisciplinary approaches to many of the courses provided.

This last alternative was accepted in principle by the Academic Planning Board. The problems encountered when the policy was translated into practice will be described later in the paper.

ADMINISTRATION OF THE PROGRAMME

It has to be appreciated that the funding of a new programme must have the approval of the Ministry of Education in order to be able to obtain funds from the Treasury. In the case of the off-campus academic project, it might take some time before approval could be given if the conventional procedure was adhered to. As a result it was decided that for the first year no extra funds would be solicited. The project was launched with whatever funds available in the university, chiefly from savings of posts unfilled or some other sources. The problem as to who was to administer the programme arose. Was it to be administered separately by each school involved in teaching off-campus courses or was there a need for someone to be appointed to plan, develop, administer and co-ordinate the teaching programmes since more than one school would be involved? The vice-chancellor decided that the Centre for Educational Studies which is responsible for providing teacher education and language teaching programmes will take on the additional responsibility of administering the off-campus programme. A senior academic staff member

was appointed as the co-ordinator who would be responsible for the duties of planning, developing, co-ordinating and administering the programme. There is therefore a clear-cut division of duties and functions. The schools that participate in the programme are to be responsible for teaching under the direction of their deans. The Centre for Educational Studies is to be in charge of administration under the supervision of the co-ordinator who continues to carry out his teaching duties at the same time. In the discharge of his administrative functions he is assisted by the clerical staff of the Centre and two administrative assistants.

THE DELIVERY SYSTEM

At the planning stage of the programme there was no consensus on how the off-campus students were to be taught. This was understandable. In a newly established university some staff members felt that consolidation of the on-campus teaching programmes should be accorded first priority before launching into an untried venture. Others felt that in view of the shortage of staff to cope with on-campus teaching commitments, it would be stretching human resources too far to take on further new commitments in a field still unfamiliar to many.

To enlist the minimum support of the staff, a compromise arrangement had to be adopted. It was agreed that off-campus students would be provided with syllabuses of courses and book lists. In addition, outlines of on-campus lectures should also be supplied to the students. Conducting a three weeks' intensive course to be held yearly in December was also agreed to by the academic staff. Thus a system of instruction was established which was to be regarded as experimental subject to review in the light of experience. Applications were called for. In spite of the limited assistance which could be offered to the successful applicants, the response was overwhelming. The original intake ceiling of 40 students was increased to 84. Through gentle persuasion the academics also agreed to run a one week orientation programme to induct the enrolled students into the different courses and the set-up of the university. The orientation programme proved to be crucial in fostering closer understanding between staff and students. The staff was so much impressed by the motivation of the students and their often embarrassingly excessive appreciation of the assistance rendered them, that many went beyond giving students course outlines to include summaries and excerpts from journals and reference texts.

No efforts were spared to give the off-campus experimental project the greatest publicity with the help of the mass media. Support from the public became so widespread that the Ministry of Education strongly recommended an allocation of $150,000(M) to fund the 1972 programme. By 1973 full recognition that the off-campus academic programme was to constitute an integral part of the university total commitments was given and an annual allocation of funds became available to support future development. Additional staff can now be appointed to cope with the increased workload and money is available for the purchase of printing and other equipment. With the formation of an Off-Campus Advisory Committee comprising the deans of the different schools, the registrar, the bursar and the librarian, academic staff members gradually became convinced of the need to develop a system of teaching quite different from the conventional approach to overcome the problems of distance and absence of face-to-face discussion. Soon a pattern was evolved to comprise the following main approaches:

(1) Teaching by correspondence using printed matter as the main medium.

(2) This method is reinforced by the use of cassette tapes to allow the students to hear the voices of the lecturers and also to listen to views of different students involved in a tutorial or seminar.

(3) Establishment of science centres for the natural science students to carry out their practical exercises during the weekends.

(4) The appointment of science demonstrators and mathematics tutors to give additional help to the science and mathematics students.

(5) Formation of study groups by the students of humanities and social sciences so that they will meet regularly to compare views, exchange experiences and to give moral support to one another.

(6) Visits by academic staff members to the science centres and study groups at least once a year to acquaint themselves with the problem of the students and to render whatever assistance required on the spot.

(7) Three weeks compulsory intensive course in December, a requirement to be fulfilled before students are permitted to sit the sessional examinations.

(8) Provision of library books by post and the establishment of minilibraries at the various science and study centres.

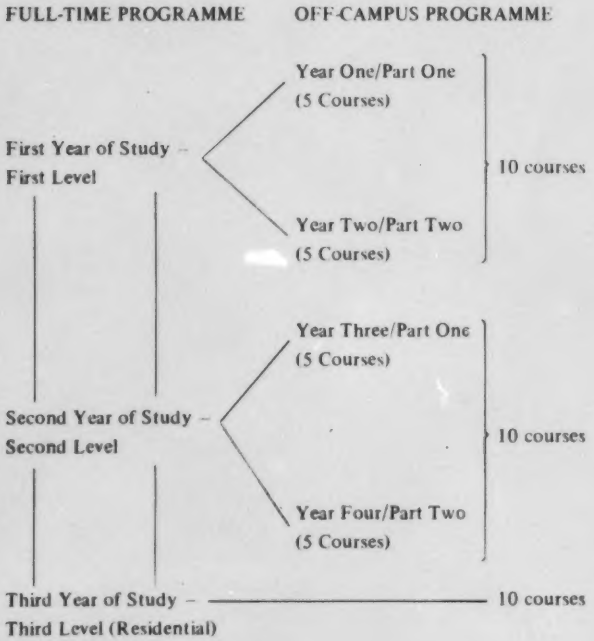
COURSE STRUCTURE

Courses are offered at three levels of academic study with each level corresponding to the requirements of each of the three year full-time academic courses. Off-campus students are required to take two years to complete each of the first two levels and a total of five to six years to complete the courses required for a degree. Students must offer five but not more than six of these courses in the first year and the other five or four courses as part two in the following year. A student has to complete the work of at least five courses in the first year and altogether ten courses by the second year before he is allowed to proceed to the next level of study. For the third level courses, students are required to be full-time students in the campus.

When the off-campus academic programme was first launched in 1971, only two schools: the School of Humanities and the School of Comparative Social Sciences were prepared to offer courses. They were joined by the School of Physics and Mathematics in 1973 and the Schools of Chemical Sciences and Biological Sciences in 1974.

It might be asked why it was necessary for off-campus students to attend to full-time study in the final year of the degree course. The answer is that in a developing country like Malaysia, standards of academic excellence have to be zealously guarded. A degree must be acceptable to prospective employees for employment purposes. While innovation is to be encouraged, at the same time changes must not be too radical to ensure acceptability. Even for the on-campus students, their examination scripts are assessed by external examiners to maintain and to develop standards. It is envisaged that once the concept that courses at university level can be taught successfully outside the campus and that the standards of performance attained are in no way inferior to those achieved by on-campus students, then the structure may be reviewed and provision could be made for some students to complete the entire degree programme off-campus.

Structure of Off-Campus Academic Programme


FULL-TIME PROGRAMME
OFF-CAMPUS PROGRAMME
First Year of Study – First Level
Year One/Part One (5 Courses)
Year Two/Part Two (5 Courses)
10 courses
Second Year of Study – Second Level
Year Three/Part One (5 Courses)
Year Four/Part Two (5 Courses)
10 courses
Third Year of Study – Third Level (Residential)
10 courses

ADMISSION REQUIREMENTS

Educational qualifications

The conditions for entry and minimum educational qualifications necessary for admission to the off-campus academic programme are similar to those for full-time undergraduate courses. Candidates must have at least one of the following:

(i) Malaysian Certificate of Education/Cambridge School Certificate with a pass in Bahasa Malaysia (= Malay Language) I or II or a pass with credit in English and a full Higher School Certificate with at least two principals,

(ii) Malaysian Certificate of Education/Cambridge School Certificate with a pass in Bahasa Malaysia I or II or a pass with credit in English but without a full Higher School Certificate. The candidate, however, must have at least five years of working experience relevant to the selected areas of study.

Other requirements

(i) Age:
Candidates must not be less than 23 years of age on 1st January in the year when applications are submitted.

(ii) Letter of consent from the employer:
Candidates are required to obtain a written consent from their employers to allow them:

(a) to attend annually for a minimum period of four years a three or four weeks' intensive course to be held in December,

(b) to sit for the annual Sessional Examination in February and if necessary also to sit for the Supplementary Examination in April or May. The duration of the examination is about two weeks,

(c) to attend full-time studies on-campus for one academic year in the fifth year when they have successfully completed the first two levels of studies.

SELECTION OF CANDIDATES

Selection of candidates is the responsibility of the Admission Board comprising the deans, directors and co-ordinators of all the schools and centres, the librarian, the bursar and the registrar with the vice-chancellor as the chairman.

The following represent the main criteria to be used as a guide in the selection process:

(a) Academic attainments as evidenced by the results of the Malaysian School Certificate and the Malaysian Higher School Certificate examinations.

(b) Relevant experience.

(c) Ethnic origin in order to maintain a balance of intake reflecting the ethnic composition of the population.

(d) Place of residence of candidates to ensure that an equitable geographical distribution of students is maintained and the national character of the programme is adhered to.

(e) Occupations of the candidates to ensure that a reasonable range is achieved.

EXAMINATIONS

The following are regulations governing the examination of off-campus students.

Part 1 – First Level of Study

Candidates will have to sit for 5 equally weighted examination papers at the end of Part 1 of the First Level of Study.

Each examination paper will be evaluated on the basis of 100 marks. However, the final assessment of any course will consist of examination evaluation which together with classwork assessment where applicable, would add up to 100 % and would then be graded in accordance with the following scheme:

Final Assessment Percentage	Grades	Remarks
70 and over	A	Very Good
60 to 69	B	Good
50 to 59	C	Credit
40 to 49	D	Pass
39 and less	F	Fail

Candidates who fail one or more papers taken at the sessional examination will be given an opportunity to re-sit such paper(s) at the immediately following supplementary examination.

The supplementary examination is derived from the sessional examination of Part 1 of the First Level of Study; the examination evaluation of the paper(s) sat for and failed at the sessional examination shall be replaced by those obtained at the supplementary examination. This evaluation, together with classwork assessment where applicable, would add up to 100 % to arrive at the final assessment and would then be graded in accordance with the scheme provided above.

Candidates with not more than 2 failures shall be permitted to proceed to Part II of the First Level of Study. Those with more than 2 failures shall either repeat the Part 1 of the First Level of Study or leave the university as decided on by the University Board of Examination.

Candidates will not be allowed to repeat Part 1 of the First Level of Study more than once.

Part II – First Level of Study

Candidates will have to sit for 5 equally weighted examination papers at the end of Part II of the First Level of Study.

The weight of each examination paper and the procedures of assessment are similar to those governing the sessional examinations for students who have completed the Part 1 of the First Level of Study.

At this stage the candidates are assessed as to whether they have been deemed to have passed the sessional examination for the First Level of Study (which includes the results obtained at the sessional and/or supplementary examination held at the end of Part 1 of the First Level of Study). The grades obtained by candidates for Part 1 of the First Level of Study are added to the results of the sessional examination at the end of Part II of the First Level of Study and the following scheme provides a guide for deciding whether the candidates are deemed to have passed the First Level of Study as a whole or are required to sit for the supplementary examination for papers failed in Part II of the First Level of Study.

Overall average percentage	Categories
40 and over with not more than 3 Fs	Pass
40 and over with more than 3 Fs OR 39 and less	Supplementary examination in each paper failed in Part II of the First Level of Study

The supplementary examination is derived from the sessional examination of Part II of the First Level of Study; the examination evaluation of the paper(s) sat for and failed at the Part II sessional examination shall be replaced by those obtained at the supplementary examination. This evaluation together with the classwork asessment where applicable, would add up to 100 % to arrive at the final assessment and would then be graded in accordance with the scheme. The following scheme provides a guide for deciding whether candidates who sat for the supplementary examination, are deemed to have passed or failed the First Level of Study.

Overall average percentage	Categories
40 and over with not more than 3 Fs	Pass
40 and over with more than 3 Fs OR 35 to 39 and with not more than 3 Fs	Redeemable Failure (a)
39 and less with more than 3 Fs	Fail (b)

(a) Candidates in this category can either pass or repeat the First Level of Study.

(b) (i) 35 % to 39 % with not more than 5 Fs = Fail and repeat

(ii) 35 % to 39 % with more than 5 Fs =) Fail and out

34 % and less =

Candidates will not be allowed to repeat the First Level of Study more than once.

Only successful candidates will be allowed to proceed to Part 1 of the Second Level of Study.

Part 1 - Second Level of Study

Rules and regulations are the same as those applicable to assessing the Part 1 of the First Level of Study except that

(i) A candidate is also required to obtain:

(a) an overall average of 40 % in his major discipline

and (b) pass in at least half the papers in his major discipline.

Part II – Second Level of Study

Rules and regulations are the same as those applicable to assessing the Part II of the First Level of Study except that

(i) A candidate is also required to obtain:

(a) an overall average of 40 % in his major discipline

and (b) pass in at least half the papers in his major discipline to pass the Second Level of Study as a whole.

(ii) A candidate obtaining an overall average percentage of 39 and less with more than 3 Fs shall be deemed to have failed the Second Level of Study but will be allowed to repeat the level.

Final Level of Study

Rules and regulations governing the final year assessment are applicable to all off-campus students whose status in the final year is converted to that of on-campus.

CONCLUSION

Launched in June 1971, the off-campus academic programme over the last three years has made recognizable headway in terms of improved services to the students and development of new teaching approaches and techniques.

The present enrolment of 525 students distributed over every constituent state of the Federation gives the programme a national character and the ethnic distribution of the students also reflects the multi-racial demographic structure of the country.

With the recognition of the programme as an integral part of the university teaching and research commitments, additional academic staff have been recruited to cope with the increased workload. Total involvement of the academic staff in teaching off-campus students is essential to ensure that no impression is created that the quality of the off-campus students on successful completion of their studies is in any way inferior to that of the on-campus graduates. The degrees awarded to the off-campus students must be acceptable to employers and to other universities for purposes of employment and/or advanced studies.

It must also be emphasised that the academic staff has to be convinced that methods used in teaching off-campus students cannot be the same as those used inteaching on-campus students. New approaches have to be devised. The experience gained over the last three years have proved that designing off-campus courses has helped to improve the quality of teaching to the on-campus students as well. There is an increasing demand by on-campus students of the instructional materials provided for off-campus students. It can be envisaged that before long the whole approach to teaching on-campus students will be reviewed. Team teaching will in many cases replace individual efforts. This new development will certainly help to foster still closer co-operation and collaboration among academic staff members.

Since the setting up of study centres outside the university campus requires co-operation between the university on the one hand and the State Departments of Education and schools on the other, such co-operative efforts also help to promote a better understanding among school teachers, administrators and university lecturers involved in the development of higher education. A useful lesson learned from the success of the Universiti Sains Malaysia Off-Campus Academic Programme is that in introducing a new academic venture, policy makers must have the courage and imagination to take calculated risks like entrepreneurs in the field of business. In a developing country where many policy decisions are influenced by precedence, it would take a long time to gain approval for a new venture. Hence, a new programme has sometimes to be launched without first undertaking a detailed feasibility study to enlist support and secure official approval. This does not imply that there should be no planning at all. As described in the early part of the paper, an appreciation of constraints and available resources is essential to ensure that the new project is designed within a viable and feasible framework. In other words two plans are necessary: a short-term plan to get the project off the ground and a long-term programme with projected targets phased out to ensure success. Under severe constraints and with limited resources, educational planning in a developing country should not be dictated in some cases by rigid principles. Courage to take risks and flexibility are often necessary to introduce a new programme. It is said that perhaps in the field of education, a new breed of entrepreneurs similar to those in the field of commerce and industry should be trained to promote and accelerate educational development.

It is hoped that with the success of the off-campus academic programme at Universiti Sains Malaysia, the other four universities in Malaysia will also consider providing similar programmes in order to meet the increasing demand for university education. From the financial viewpoint, it is obvious that the cost per unit of off-campus students is lower than that of on-campus students. Methods of financing university education may have to be reviewed so that off-campus programmes are used to a greater extent to maximize the utilization of limited building space, residential facilities, rare specialist teachers and limited funds.

The first intake of off-campus students at Universiti Sains Malaysia will graduate in June 1976. Their performance will be watched with keen interest by all concerned with the development of higher education in Malaysia.

APPENDIX I

UNIVERSITI SAINS MALAYSIA

OFF-CAMPUS ACADEMIC PROGRAMME

Geographical Distribution (1974/75)

State	Malay		Chinese		Indian		Others		Total
	M	F	M	F	M	F	M	F	
Johore	13	-	22	3	2	-	-	-	40
Kedah	27	2	20	3	5	-	1	-	58
Kelantan	50	3	20	3	2	-	-	-	78
Melaka	17	-	15	4	-	-	-	-	36
Negri Sembilan	14	1	12	2	3	-	-	-	32
Pahang	10	2	8	-	3	-	-	-	23
Penang	20	3	29	8	7	-	-	-	67
Perak	26	4	33	8	6	1	-	-	78
Perlis	12	1	5	-	-	-	-	-	18
Selangor	41	3	17	5	9	-	-	-	75
Trengganu	7	1	5	1	-	-	-	-	14
Sabah	3	-	-	-	-	-	-	-	3
Sarawak	1	-	2	-	-	-	-	-	3
Total	241	20	188	37	37	1	1	-	525
Grand Total	261		225		38		1		525

APPENDIX II

UNIVERSITI SAINS MALAYSIA

OFF-CAMPUS ACADEMIC PROGRAMME

Distribution of Students by Occupations (1974/75)

Occupation	Social Sciences				Humanities				Science		Total
	L2/P2	L2/P1	L1/P2	L1/P1	L2/P2	L2/P1	L1/P2	L1/P1	L1/P2	L1/P1	
Teacher	22	44	57	48	35	53	58	61	16	37	431
Government Officer	3	3	8	11	-	3	3	8	-	-	39
Journalist	-	-	-	-	-	1	2	-	-	-	3
Police Inspector	-	2	1	1	-	-	3	3	-	-	10
Army	-	2	-	6	-	-	-	-	-	-	8
Secretary/Clerk/ Steno/L.A./H.A.	-	4	5	8	1	1	-	4	-	4	27
Custom Officer	-	-	2	-	-	-	-	1	-	-	3
Administrator, Manager	-	-	1	2	-	-	-	-	-	-	3
Others	-	-	-	-	-	-	-	-	-	1	1
Total	25	55	74	76	36	58	66	77	16	42	525

APPENDIX III

UNIVERSITI SAINS MALAYSIA
OFF-CAMPUS ACADEMIC PROGRAMME

Courses (1974/75)

No.	Course
	Level I/Parts 1 & 2 (Humanities)
1.	Man and His Environment
2.	Introduction to Literature
3.	Language and Linguistics
4.	Survey of the Performing Arts
	Level I/Parts 1 & 2 (Social Sciences)
5.	Introduction to Anthropology
6.	Introduction to Public Administration
7.	Introduction to Ethnic Studies
8.	Malaysian Politcs
9.	Survey of Sociology
	Level 2/Parts 1 & 2 (Humanities)
10.	Modern Mainland SEA
11.	Early History of the Middle East
12.	Modern Political History of USA
13.	Modern Indonesian Fiction
	Level 2/Parts 1 & 2 (Humanities)
14.	Pre-War Malay/Indonesian Poetry
15.	English Literary Tradition
16.	Economic Geography
17.	Physical Geography
18.	Sociology of Language
	Level 2/Parts 1 & 2 (Social Sciences)
19.	Labour Economics
20.	Micro Economics
21.	International Economics
22.	Politics in Plural Societies
23.	Political Parties and Interest Groups
24.	Rural Sociology
25.	Sociological Theory I
26.	International Relations
27.	Q.M. 200 A
28.	Q.M. 200 B

APPENDIX III

UNIVERSITI SAINS MALAYSIA
OFF-CAMPUS ACADEMIC PROGRAMME

Courses (1974/75)

Sciences

No.	Course
	Level I/Part 1 (Physics)
1.	General Physics I
2.	General Physics II
3.	Thermodynamics
4.	Electricity and Magnetism
5.	Optics
	Level I/Part 2 (Physics)
6.	Electricity and Magnetism
7.	Vibrations and Waves
8.	Survey of Electronics
9.	Modern Physics I
10.	Modern Physics II
	Level I/Part 1 (Biology)
11.	Introductory Cell Biology and Chemistry
12.	Introductory Genetics and Principles of Systematics and Evolution
13.	Invertebrate Zoology
14.	Viruses, Bacteria and Lower Plants
	Level I/Part 1 (Chemistry)
15.	Inorganic
16.	Organic
17.	Physical
	Level I/Parts 1 & 2 (Mathematics)
18.	Linear Algebra I
19.	Elements of Modern Algebra
20.	Introduction to Statistics
21.	Computer Programming
22.	Calculus I
23.	Calculus II

Distance Education at University Level

The Experience of Beirut Arab University, 1960–1975

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The author analyses the experience of Beirut Arab University, a private university in a developing country. The paper gives a description of the university, then it outlines the rise and development of the system of distance education within the university system. The paper proceeds to mention the university departments accepting the system of distance education, and the categories of students benefiting from it. Public awareness of the availability of degree courses is discussed, as well as the regional and governmental problems that face the university and its students. Textbooks, textual communication, student counselling, libraries and reading-study rooms, and commercial service bureaus, provide means of communication with students. Results of examinations are analysed to determine the progress of students studying at a distance. The student union and the student outlook towards the system are discussed as well as the employment of the graduates. Finally, certain institutional problems are outlined.

1. Introduction

Beirut Arab University was founded in 1960 by the Muslim Welfare Society, Beirut, Lebanon, in cooperation with The University of Alexandria, Alexandria, Egypt, with a view to providing opportunities for higher learning to Arab students. Enrolment rose rapidly from 111 students in the academic year 1960/1961 to over 25 000 students in 1974/1975. The university is a member of The International Association of Universities, and a founding member of the Association of Arab Universities. The total number of graduates exceeded 15 000. The university is the only private Arab university in existence, and it caters for students residing all over the Arab world to the extent that the student body coming from outside Lebanon varies, depending on the year, from 85% to 90%.

2. Undergraduate studies

The university, so far, is composed of six faculties where students prepare their bachelor's degree. These faculties are:

1. The Faculty of Arts (1960), with departments of Arabic, geography, sociology, history, English, philosophy and psychology.
2. The Faculty of Law (1960).
3. The Faculty of Commerce (1961), with departments of accountancy, economics, and business administration.
4. The Faculty of Architecture (1962).
5. The Faculty of Science (1975), with departments of physics, mathematics, and statistics.
6. The Faculty of Electrical Engineering (1975).

3. Post-graduate studies

The University offers currently the following post-graduate programmes:

1. General Diploma in Education.
2. Post-Graduate Diploma in Arabic and Islamic studies leading to M.A. and Ph. D. programmes in Arabic, history, geography, sociology and philosophy.
3. Post-Graduate Diplomas in Law leading to a Ph. D. programme in law.
4. M.Sc. courses in architecture and urban design; and in city planning.

4. The rise and development of the system of distance education within the university education system

It is a very important and interesting fact to realize that no preplanning of a system for distance education was ever contemplated by the university authorities; and that the existing functional system, with all its merits and drawbacks, arose and developed within the university education system in response to social, economic, and – therefore interesting to outline – its historical growth.

When the university opened its doors in 1960, it was hoped that it would cater for the following categories of students:

A. Those who could not enter the two then existing foreign universities in Lebanon either on religious or on financial grounds or because their applications were rejected due to the lack of places.

B. Those whose knowledge of French or English was not sufficient to enable them to apply for admission to the French

or American universities in Beirut, as the native and national language is Arabic.

C. Those who had to earn a living while studying, whether being old graduates or fresh graduates from secondary education.

D. The normal full-time type of students who would prefer an Arab higher system of education to a non-Arab one.

To provide university education to the above categories, the university authorities had to take a policy decision about attendance requirements as a pre-requisite for permitting students to sit for examinations. So, during the first year of operation, it was decided to adopt the continental European outlook in certain faculties and departments, namely that students are free to come or not to come to lectures, but that they must sit for their examinations at the end of each academic year within the university campus on the announced dates to be examined in the detailed prescribed syllabuses. This decision in fact was and still is the corner-stone of the system of distance education as practised at Beirut Arab University.

As time passed, the university proved its fitness to survive as a private Arab university with high academic standards. When conferred, its degrees were immediately recognized in the Arab world and all over the world because the university is academically affiliated to the University of Alexandria. The recognition of the university with its teaching pattern created a great potential clientele of students, but most of these students could not join the university as the examination dates were the same as their normal working months. So, the second major decision that boosted distance education was to hold the annual examinations late June-early July. This decision was taken in harmony with the wishes of the educational authorities in most Arab countries, because it meant that the university examinations would be held during the normal schooling summer holidays. Thus, the educational authorities in the Arab world have no objection if their elementary and secondary school teachers wish to join the university. The examinations timing decision was taken in the academic year 1964-1965.

The third major decision was in the domain of the printed word, viz. books and lecture notes. In 1965-1966, an understanding emerged into existence within the university, that it is the responsibility of the professor in charge of the teaching of a certain course to provide his students with a suitable textbook or printed lecture notes covering the extent of the syllabus set by the university authorities for examination purposes. The professor is free to decide whether to write solely or jointly his own textbook or lecture notes, or to suggest material already available on the market.

The fourth important decision was a by-product of 1967 Six-Day-War in the Middle East. Israel occupied Arab territories where secondary school graduates had no opportunity to join a university. Beirut Arab University willingly – and to a major extent unconsciously – took over the Arab national responsibility of providing higher education to Arabs in occupied territories through its system of distance education embracing independent study at university level. To cope properly with the new emerging situation, the university had to modify slightly its procedure. In 1967-1968, it was decided:

(1) Textbooks or printed lecture notes should be available to students not later than the December preceding the June-July examinations. This is very important in order to allow ample time for students to receive their books wherever they happen to be, and no matter under what political conditions they may be residing.

(2) Examination dates can be postponed depending on the political conditions in the Middle East, in order to make sure that the greatest majority of students can be in the university when examinations are held. Since 1967, the university has twice held its examinations in August.

To sum up, distance education is a recognized part of the system of education at the university, based mainly on independent study. Students whether studying at a distance, or attending lectures regularly or semi-regularly, must all take the same examination papers without distinction.

5. Departments accepting the system of distance education

It should be noticed that there is a conformity of opinion at Beirut Arab University about the extent to which distance education can stretch when based on independent study. The university accepts students not-regularly attending in the following faculties and departments only:

A. Faculty of Arts: in the departments of (1) Arabic, (2) history, (3) geography, and (4) philosophy and psychology.

B. Faculty of Law.

C. Faculty of Commerce, for those preparing degrees in (1) accountancy, (2) business administration, (3) economics, and (4) administration and economics.

6. Categories of students

Two important studies were made at the university to identify students. The first study (table 1) was related to their ages when joining the university; and the second (table 2) was to determine the time differential between the date of graduation form secondary education, and the date of their university registration.

Table 1

Distribution of ages of students when joining the university

Age	%
18 years or less	7.3
19-20	31.1
21-22	27.0
23-24	14.5
25-26	9.3
27-28	5.4
29 or over	5.4
	100.0

Table 2

Distribution of students by secondary-leaving/university entrance time differentials

Time differential Years		%
0	58.1	58.1
1	15.1	15.1
2	2.5	2.5
3	6.2	6.2
4	5.0	5.0
5	3.3	3.3
6 or over	9.8	
	100.0	

7. Public awareness of the availability of degree courses

No doubt public awareness of the availability of degree courses can be easily deduced from the number of students joining the university for the first time (table 3). A study was made to determine the percentage of students making use of the availability of distance education in the different faculties and departments where such an opportunity is provided (table 4)

Table 3

New students joining the university

Year	Number of students
1960–61	111
1961–62	295
1962–63	450
1963–64	1324
1964–65	2063
1965–66	3677
1966–67	3624
1967–68	6311
1968–69	6446
1969–70	4929
1970–71	5322
1971–72	7322
1972–73	8100
1973–74	7130
	57104

Table 4

Percentage of students benefiting from distance education

Faculty of arts	%
Department of Arabic	85
Department of Geography	77
Department of History	83
Department of Philosophy and Psychology	72
Faculty of Law	73
Faculty of Commerce	66
University average	75

On the basis of table 4, it is estimated that currently about 18000 students benefit from distance education at university first degree level.

8. Regional and governmental problems

In order to visualize the problems that faced the university or are facing it at present on regional or governmental basis, it is essential to remember the structure of the student body by nationalities (table 5).

Table 5

Distribution of students by nationalities

Country	1970/71	1973/74
Total number of students	(20.125)	(24.678)
Lebanon (where Beirut Arab University is located)	15.4	8.8
Jordan	43.2	43.6
Syria	20.0	15.6
Palestine	12.5	14.7
Egypt	2.7	9.2
Kuwait	1.8	2.2
Saudi Arabia	1.3	0.5
Iraq	1.2	1.1
Bahrain	1.2	2.1
Qatar	0.4	1.2
United Arab Emirates	0.1	0.4
Other Passports	0.2	0.6
	100.0	100.0

The first set of problems arise from the inter-Arab states conflict. For example, a certain country currently recognizes degrees obtained by its nationals, at the university, but will not recognize degrees obtained by others even though they are permanent residents there. No doubt, this segregation policy has its effect on the inflow of new students.

Another serious difficulty that the university encounters in this domain is the result of the existence of the censorship system on the printed word in many countries and areas. It is becoming a common phenomenon for students residing in certain areas either to receive textbooks with cut off pages, or not to receive the textbooks at all. This form of censorship is causing hardship for students making use of distance education, because they will not have the chance to study the censored material except after arriving in Lebanon for the examination period.

9. Textbooks and textual communication

The printed word plays the main role in communicating with students who cannot come to the university to attend lectures, and therefore, it is very important to evaluate the experience of the university in this field. A few remarks may serve as a basis for evaluation.

A. It is the custom of professors in the Faculty of Arts and the Law to write individually their own textbooks or lecture notes. In

the Faculty of Commerce, joint authorship as well as individual authorship are both in common practice. There is a single incident where the university sponsored the production of a textbook used by all first year students regardless of their faculties; five professors jointly produced the textbook. All professors bear in mind the fact the great majority of students will rely wholly on the supplied text while preparing their examinations. Therefore, text material must be clear, comprehensible and conforming to the syllabus requirements. If we use student reaction during examination to pass a value judgement on the suitability of textbooks produced for distance education, we can say with confidence that the system was successful because students revolted only in four different instances all through the university history, remembering that over 250 courses are offered every year.

B. – As for conformity between textbook contents and syllabus requirements, unfortunately no studies were made about this specific point. The general feeling at the university is that deviations are within acceptable limits because no serious complaints were raised by either students or external examiners.

C. – There is no definite time pattern for rewriting the textbook of a certain course, although, in practice, it is very seldom the case to use a textbook for more than four years. The common practice is two to three years, and recently, the university authorities asked professors not to change textbooks unless they have been in use for at least two years.

D. – Textbook material is always brought up to date as each professor improves on the textbooks produced by his predecessors. Our leading professors are seconded from Egyptian universities for a normal period of four years; consequently no professor is the permanent teacher of a certain course, and therefore new improved textbooks by new authors are always in current production, benefiting from the experience developed by earlier authors.

10. Student Counselling

The present university structure provides a one-way channel communication, namely from professors to students, in the case of students benefiting from the system of distance education. In order to improve on the system, and as all students should be in the university during the examinations, the following supplementary services are regularly provided:

A. Academic assistance: All deans, heads of departments and professors do keep their offices open to any student seeking advice on courses, syllabus requirements, textbooks, academic or administrative problems.

B. Lady adviser: A lady adviser is an employee of the university, and is in charge of following up the issues brought up by the females in the student body whether on individual or collective basis.

C. Psychic clinic: The university runs its own psychic clinic supervised by university professors and personnel.

D. Religious guidance: The university, through its mosque and the girls prayer room, provides the necessary religious atmosphere and guidance especially during the examination period.

11. Libraries and reading-study rooms

As most students do not frequent the campus except during the examinations period, and as most of them are living in areas where no adequate libraries are available, university libraries have to adapt themselves to this situation. Libraries are kept open from 9 a.m. till 10 p.m. daily, including Sundays and holidays, while the reading-study rooms remain open till midnight. The library holdings are one of the best in the Middle East with 100,000 volumes and 2500 current periodicals.

12. Commercial service bureaux

A good number of so-called 'service bureaux', run on commercial basis, sprang up around the university. They are bedoming unofficial intermediaries between the university and its student body benefiting from the system of distance education. These service bureaux, being motivated by profit, are becoming very useful in certain respects and very harmful in other respects.

Students do find these bureaux very useful, when services provided refer to registration in the university, supply of books and lecture notes as published, making travel and boarding reservations for the duration of the examinations, communicating examination results, certifying documents and legalizing them by the Lebanese authorities, applying for and procuring entry visas, supplying students with copies of the examinations time-tables, candidates examination sitting numbers, and past examination questions, etc . . .

These bureaux become very harmful, although students are unaware of this, when they start supplying students with material of academic nature like: summaries of textbooks, expected questions and their model answers, confidential list of chapter titles to be studied, commentaries on professors' lectures, etc . . .

No doubt, time given, the parasite service bureaux will vanish, and only the good ones will survice. But it may also be noticed that these service bureaux, in their present state, do contribute to the high failure rate experienced at the university.

13. Examination results

As all students do sit for the same examinations whether attending lectures regularly or semiregularly, or benefiting from the system of distance education, it was found necessary to carry out some statistical surveys to evaluate the educational system at Beirut Arab University.

The first survey was undertaken to assess the progress of students after joining the university. Two dates were selected, one after four years of study representing the normal four year undergraduate course, and the other after seven years. Results are shown in table 6 below.

Table 6

Progress of students

Category	After 4 years	After 7 years
Graduated	10.6%	32.0%
Still studying	43.0	8.7
Expelled for bad failure	21.0	29.1
Withdrawn	25.4	30.2
	100.0%	100.0%

Another survey was undertaken to analyze the relative progress of students studying at a distance and those regularly attending. The sample included all new first year students registered in 1971/72. Results are shown in table 7.

Table 7

First year examination results

Result	Regularly attending	Studying at a distans
Passed clear	16.6%	26.5%
Passed with make-up exams	33.2	36.8
	49.8	63.3
Failed	50.2	36.7
	100.0%	100.0%

It is clear from the above surveys that independent study at the university level as a form of distance education does not imply an easy university education or a worse chance in passing university exams.

14. The student union

The student union is freely elected by all registered students. In fact, it is elected only by those regularly attending. But as nearly all students come from more or less similar social background, the union in practice represents all students whether regularly attending or studying at a distance. The union functions in cooperation with the university authorities, and it is financed from the central university fund. Fortunately, the student union has understood the unique position of the university in being private, with limited resources, and at the same time adopting an open gate policy. Therefore, the university has not experienced any student campus unrest, although its students do share actively in all local national or regional movements which are a by-product of the political unrest in the Middle East.

15. Student outlook towards the system

Students under the present system of education as experienced by Beirut Arab University, do not develop either aggressive or inferior complexes. They feel that they are normal university students because in departments where distance education is an accepted pattern, the question of the frequency of attendance becomes a personal matter. If a person, for one reason or another, decides to come regularly to the university, or decides to take employment outside Lebanon and to stop attending lectures, he finds himself easily moving in either direction. During examinations, all students are placed on the same roll, and are given the same examination questions. Examinations are corrected by the same professors; and conferred degrees do not imply any reference to the system of study adopted.

When Beirut Arab University was in its early years, some people questioned the possibility of the system to survive within a private university. But to the merit of the university, currently seven government controlled Arab universities are attempting to incorporate distance education in their educational system to a smaller or greater degree. These seven universities are distributed as follows: one in Lebanon, three in Syria, one in Iraq, and two in Saudi Arabia.

16. Employment problems:

By the end of the academic year 1973-74, the total number of graduates exceeded 15,000 (table 8).

Table 8

University graduates (B.A. & B.Sc.)

Faculties		No.
Faculty of Arts		9594
Arabic	4984	
Geography	1688	
History	1922	
Philosophy and Sociology	465	
Philosophy and Psychology	324	
Sociology	59	
English	152	
Faculty of Law		1091
Faculty of Commerce		4167
Accountancy	2699	
Business Administration	496	
Economics and Political Science	680	
Economics	136	
Administration and Economics	156	
Faculty of Architecture		152
		15004

Graduates do not face empolyment problems or discrimination because of the system they studied under. It usually takes a year for someone already employed to be reclassified according to his new qualifications, or to find a job if he was not previously employed.

Current employment discrimination against all-university graduates is being practised under one of two forms:

A. Certain countries, as already stated, discriminate between graduates on nationality basis.

B. Certain business firms discriminate between graduates of Arab universities on the one hand and graduates of the American or the French universities, on the other hand preferring the latter ones on the grounds that they are better qualified in foreign languages, and thus they are more useful to these business companies.

17. Institutional problems

Any institution of the size of Beirut Arab University will have its own institutional problems. I would like to pinpoint some of the problems concerning distance education.

A. – Marking examination papers: Currently a student must sit for seven to twelve papers each year. Taking an average of ten papers, and a student body of 25000, se find that 250,000 essay type examination papers must be read, corrected and marked within not more than a month. We are able to do this only by asking professors in other universities, especially Egyptian universities, to join our professors in this huge process.

B. – Updating syllabuses: In certain areas, especially in behaviour sciences, theories are changing rapidly. Consequently syllabuses must be updated. During the short period of 15 years, syllabuses have been changed three times, and currently they are under review. An observer wonders how frequently and quickly syllabuses, and consequently textbooks, must be revised.

C. – Administrative and financial problems: Beirut Arab University is known as a welfare institution where university students pay a nominal fee for their study and examinations (65 sterling pounds annually). These fees, added to other university financial resources, hardly cover current expenses. Remembering that the university is a private institution not subsidized by governments, the future does not seem to be an easy one is a world of rapidly growing inflation.

D. – Educational technology: People speak of modern educational technology and of multimedia distance education as being cheaper and more effective in the long run. In theory, the idea seems attractive, but when we thought about it concretely, we found that it is too ambitious for a private institution to raise funds to finance such a scheme, beside the fact that the postal system in our region is still backward and unreliable. Therefore, our thinking had to be modest and confined to small media. Currently, we are studying the possibility of recording some lectures on cassette tapes as supplementary material to the textbooks. But even with limited resources, any university involved in distance education must always consider the possibilities of applying modern educational technologies partially.

18. Conclusion

Beirut Arab University is an experience all its own, developed in response to the needs of the Arab society, and the system of distance education is a natural part of the university education system. This experience is 15 years old and is healthily growing.

External Studies at the University of New England

An Exercise in Integration

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This paper analyzes the philosophy and objectives, teaching methods and organizational framework which characterize the external studies scheme at the University of New England in Armidale, New South Wales. Attention is focused on the integrated nature of the New England system viewed from three perspectives:

(a) the integration of internal and external teaching through the appointment of academic staff to teach and assess both internal and external students.

(b) the integration of a variety of methods and media to overcome problems of teaching at a distance.

(c) the role of the Department of External Studies as a co-ordinating administrative unit.

The author concludes by stressing several essential elements for a successful approach to external teaching at the university level: some direct staff-student contact, efficient administration and a comprehensive advisory service.

INTRODUCTION

External studies at the University of New England may be considered an exercise in integration on three levels:

1. Internal and external teaching are combined.
2. The teaching strategy calls for the integration of various media and direct staff-student contact.
3. The successful operation of the scheme requires close co-operation between teaching departments and an administrative or co-ordinating unit, the Department of External Studies.

In examining this concept, I wish to show how a basic philosophy of external studies has determined the essential elements of the scheme, and then I should like to focus attention upon the actual dynamics of the system in some detail.

Such an analysis aims to reflect the spirit of the conference theme which stresses the interrelationship of community needs, institutional goals and the methods employed to attain these goals. Emphasis will also be given to such particular aspects as "information, counselling, student activities and two-way communication", items to which special reference was made by the Conference Programme Committee.

In the first instance, however, it is useful to mention that the University of New England is a comparatively small university by Australian standards, with an internal student population of under 3,000. It is unique on several counts. Firstly, it is situated in a small country town (Armidale, population 19,000) some 350 miles from Sydney; secondly, it is a residential university which provides on-campus college accommodation for most of its students; and thirdly, it has more students undertaking degree and diploma courses off-campus as external students than there are students in residence.

In 1955, shortly after becoming autonomous, the University of New England established a Department of External Studies through which degree and diploma courses could be offered to external students. In that year, 363 external students were enrolled in courses leading to a B.A. degree and a Diploma in Education. By 1974, there were 3,700 students enrolled in over 200 courses leading to 13 separate qualifications at undergraduate and post-graduate levels, making it the largest external studies operation in Australia. In the intervening years more than 2,500 students have graduated wholly or partly by external study and in the process have performed as well as full-time internal students, performance being measured in terms of assignment marks, pass rates at examinations and prominence in merit lists.

From the inception of the scheme the University has made every effort to maintain parity of standards between internal and external teaching and to ensure that proper facilities are provided to make external tuition as effective as possible.

1. THE NEW ENGLAND PHILOSOPHY

The essential characteristic of the New England scheme is that external and internal teaching is integrated. That is, the same staff teach and assess both internal and external students enrolled for

the most part, in the same courses. Macquarie University in Sydney and the University of Zambia are two other institutions which have adopted this approach. The University of South Africa, on the other hand, and more recently the Open University in Britain, are institutions which are committed exclusively to off-campus modes of learning.

The respective merits of the two different approaches have often been argued at length but with no more vigour than in Australia over the past two years, where the desirability and feasibility of establishing an "open university" to serve national needs in tertiary education has been a major topic for discussion. Although it has generally been accepted from the outset that one of the best and most immediate ways of opening up opportunities for teriary education for all those able and eager to benefit from it is an expansion of external studies facilities, opinion has been divided as to how such expansion should take place. The critical question has been: "An open university for Australia (on the British model) or a network of integrated internal/external institutions?"

Predictably enough, I suppose, the University of New England has strongly advocated that even though external studies is at last regarded as a worthy alternative to the more traditional on-campus mode of learning (this was certainly not the case in 1955 when New England entered the field of external studies), the integration of internal and external teaching is still a concept that should not be abandoned lightly. Indeed we have recommended to the Committee on Open University set up by the Australian Universities Commission to report to the Australian Government on the matter, that several integrated internal/external institutions, with appropriate rationalization of course offerings and a willingness to experiment with a variety of admission criteria and teaching methods, will best serve the needs of Australia.

We expressed the view that neither the University of New England nor any other single institution should become the Open University for Australia. Apart from the obvious logistical problems which a single institution would encounter, it was considered that any great imbalance in the numbers of external students compared with internal students would not be in the best interests of the university. The success of any system of external studies at the tertiary level, and especially at university level, will continue to be judged on the quality of its graduates and diplomates and it is important that this quality can be demonstrated to compare favourably with that of the conventionally educated internal student.

Many of those pressing for a single institution teaching external students only, have claimed that the present external studies systems within Australia do not cater for people who can be described as educationally under-privileged. It is claimed that these students require completely new courses especially structured to take into account their special interests and educational backgrounds and that present offerings are too vocationally orientated. It is argued that a new national open university, aimed at raising the level of cultural awareness and cultural interest within the Australian community, is needed.

Although this ideal is commendable, I consider that, like many ideals, it somewhat disregards the realities of the situation. I feel sure that – even if people commence university studies for learning for its own sake – that, by the time they graduate, they have changed their attitudes to life and almost inevitably expect to improve their vocational opportunities as graduates. If the degree is such that it has no market value or at best is regarded with some scepticism by employing authorities, I think that the new graduates of such an institution would have some reason to feel cheated after all their hard work during years of study. Self-fulfilment in this case can itself be a source of frustration. Frankly, I do not see why adult students cannot be intellectually challenged and prepared for a vocational goal at the same time. It seems to me that an external student of the University of New England (or any other integrated internal/external institution) can have the best of both worlds. That is, he can improve his vocational opportunities and undoubtedly will gain a tremendous amount of self-satisfaction from his academic endeavours. I would go so far as to say that many of our external students who start for economic reasons (promotions, new job opportunities, etc.) would continue their studies even if the economic incentives were withdrawn. This is borne out by the numbers who elect to proceed to post-graduate work without any fixed goal in sight beyond the satisfaction to be derived from it. I understand, too, that in Britain most of the Open University students are seeking some form of upgrading or professional refreshment, their studies being closely related to their occupational ambitions and endeavours. We have yet to find out just how acceptable the Open University graduate is in the community, and until we do know this I cannot see why we in Australia should consider establishing a new institution offering untried qualifications when we already have courses which command general acceptance in Australian educational and commercial circles.

I am pleased to say that the Committee of Inquiry has recommended to the Australian Government in its Report on Open Tertiary Education that a network of "integrated" institutions with a national co-ordinating body, the National Institute of Open Tertiary Education (NIOTE), be established. If the recommendations are accepted, the University of New England will clearly have a significant role to play and must be prepared for accelerated growth in student numbers, especially in the 1976-78 triennium.

Recently the university reviewed its approach to external studies after twenty years of operation. It reaffirmed its belief that the experience of the external student should include important elements of the experience of internal students, notwithstanding differences between internal and external students, especially in terms of motivation and maturity and pressure of commitments other than university studies. This philosophy was summed up in the following recommendations:

(a) Degrees should not be obtained entirely by correspondence methods.

(b) The univeristy should provide a learning experience that involves some degree of interaction of the student, not only with his source material, but also with other students and his teachers.

(c) Notwithstanding the above recommendations, external courses should be designed to take into account the independent learning situation of external students.

How the university has attempted to reconcile these apparently paradoxical aims is the subject of the next section.

2. A TEACHING STRATEGY

Institutions planning external studies programmes must, sooner or later, come to terms with something of an educational dilemma. The dilemma, as I see it, lies in the fact that external studies depend essentially on an independent learning situation and must be designed so that the motivated mature age student can plot his own path through a particular course with a minimum of outside assistance. On the other hand, systems which rely solely upon the stamina, perseverance and intellectual capabilities of its students to survive the rigours of external studies, are likely to be deemed second-rate, and perhaps even irresponsible. The compromise, it seems to me, is to provide a core of independent learning material but add other elements that provide incentives to study and ensure that there are opportunities for staff/student contacts and regular student group activity.

The basis of the external teaching strategy at New England is the correspondence element, consisting of original material written by course authors, study guides, reading lists, supplementary reading material, advisory "letters", work books and assignments. These are compiled by the academic staff, but the printing, collating and distribution of this wide variety of material according to a given schedule set by the teaching departments, is the responsibility of the Director of External Studies. In many cases, especially language courses, audio tapes are integrated with the correspondence material. Audio-visual kits consisting of cassettes, coloured slides, rock and soil samples, maps and study directives have also been used experimentally at study centres established for the purpose in several towns throughout the state, and this approach will be developed considerably in 1975. Mention should also be made of the special collection of reference books and journal articles held in multiple copies in the University Library for borrowing by external students.

The development of close staff-student relationships is encouraged through compulsory residential schools on-campus and voluntary week-end schools, held sometimes at the university but mostly at other centres. There are also regular visits to students by senior officers of the Department of External Studies and comprehensive records are kept to enable careful monitoring of student progress. Students are also encouraged to set up discussion groups wherever possible. Within this framework, an effective multi-media approach has been developed.

Underpinning this teaching strategy are several important principles:

(a) External students are taught and examined by the same staff that teach and examine internal students.

(b) They study the same courses as those offered internally.

(c) They take the same examinations at the same time as internal students in examination centres throughout the state.

(d) Departmental quotas are imposed to control enrolment numbers and thereby safeguard the interests of staff and students.

(e) Teaching and administrative duties are separated. The Department of External Studies has essentially a servicing and facilitating function, although its director shares in policy making as a member of the External Studies Committee and the Professorial Board.

In summary, then, the New England approach to external teaching requires the integration and co-ordination of:

- printed material (study guides and directives, prescribed and suggested reading)
- audio-visual aids (cassettes, slides, videotapes, films)
- week-end and residential schools
- discussion groups and tutorials
- assignments
- formal assessment
- text-books
- library mail service for books and journals
- a student counselling service.

To understand how these elements are organized and integrated, the role of the Department of External Studies and its relationship with academic staff in independent teaching departments require some explanation.

3. THE DEPARTMENT OF EXTERNAL STUDIES AS CO-ORDINATOR

Because the academic staff at the University of New England in faculties offering external courses also have internal teaching commitments, it has always been considered desirable that they should be given every opportunity to concentrate on the essential teaching processes of course writing, assignment marking and contact situations at week-end and residential schools, rather than be burdened with organizational detail and administrative paper work. To this end, and to co-ordinate the activities of a number of separate teaching departments, the Department of External Studies was established.

Traditionally, then, this Department is an administrative unit facilitating interaction between staff and students and serving their needs

in a variety of ways. It has no direct teaching function, but having said this, I must add that in some areas the boundaries between what is "academic" and what is "administrative" become somewhat blurred. This is not really surprising when effective external teaching practice depends so much on the organizational detail and must take account of the practical constraints within which the teaching-learning process has to take place. Nevertheless this kind of situation calls for a certain degree of sensitivity on the part of the Director of External Studies in interpreting and performing his role as co-ordinator.

The functions of the department are wide-ranging. Having in mind the theme of the conference, which directs attention to such areas of study as "information, counselling, student activities and two-way communication", I propose to examine these functions under four main headings:

(a) Course planning and production
(b) Counselling ad student services
(c) Staff-student contact
(d) Other functions

(a) Course planning and production

At the university of New England the responsibility for teaching, both internal and external, rests with the heads of the academic departments concerned. In practice, course co-ordinators have a great deal of freedom to decide the most suitable forms of course presentation for themselves, provided that the various elements of the course such as printed material, audio-visual media, week-end schools, residential schools and so on take into account budgetary and other constraints, especially those of postal services, library facilities, and the university's production-line capabilities. Such freedom might be regarded as a weakness. Certainly there are some courses which are less satisfactorily presented than others. But I believe that on balance, this variety adds strength to the system, for it exposes our students to a wide band of approaches to particular disciplines and avoids the pitfalls of stereotype presentation into which tightly edited material might fall. In this sense, our external students interact with individual members of staff just as our internal students do. And it is the concept of staff-student interaction that I think should be remembered when comparisons are being made between glossy professionally produced publications that by their very cost of production require repeated use for some years with few, if any, modifications, and the less pretentious but not necessarily less carefully structured material in typed form that can readily be amended from year to year in response to student comments and performance.

Although the academic staff enjoy freedom to determine their individual methods of presentation relating to such matters as number, size and frequency of batches of material to be posted, the proportion of course material that one medium or another should occupy and the extent of face-to-face contact arranged at week-end and/or residential schools, it is necessary to ensure that staff members, especially new appointees unfamiliar with external teaching, are fully aware of the organizational framework in which they have to operate. It must also be made clear to students from the outset what they will have to do to meet course requirements, and what teaching methods will be employed. To this end, the Department of External Studies, in consultation with teaching departments, has published a booklet entitlet The Teaching of External Courses, which is issued to all members of staff on appointment.

One of the most important sections of the booklet refers to the first batch of teaching material. The essential organizational details that students need to know about at the beginning of the course are listed, and these in themselves serve to remind the staff of the variety of approaches that are available to them. An extract from the booklet is included in Appendix A to illustrate some of the suggestions in detail.

When teaching material is received by the department from course co-ordinators, either in manuscript or roughly typed form, a senior member of staff of the Department of External Studies ensures that essential organizational details are included and that course requirements comply with faculty regulations and departmental policies. For instance, if there are final dates for the submission of assignments laid down by a faculty, then an individual lecturer must not overlook this fact and set a later date. An error such as this has to be brought to his notice for correction if confusion among students is to be avoided. Again, a lecturer might omit mention of week-end schools or be somewhat optimistic in setting an unrealistically early date for his first week-end school, perhaps too early to allow sufficient notice for students to make travel arrangements. The practical difficulties would be explained to him and an amendment made. A host of similar organizational issues could be described, but I trust that the two examples provided are sufficient to demonstrate the nature of the "editing" exercise. Academic requirements must be stated in unambiguous terms, they must be fair and reasonable and they must be capable of being administered with due regard to such practical considerations as production facilities, postal services, availability of reference material for students and so on. When this is not the case, it would be irresponsible to ignore the deficiencies and send material out to students knowing that confusion, uncertainty or despair will ensure. However, intervention by the Director of External Studies in this way is confined to matters of organization. There is an understanding that matters of curriculum and content and the ordering of subject matter is rightfully the concern of the teaching department offering the course. In this respect, the dichotomy between academic and administrative responsibility is clear.

Following a recent review of our procedures, I am hopeful that the Department of External Studies will participate more directly in course planning when teaching departments are considering the alternative strategies available to them, rather then be left to make minor remedial adjustments as described above. The formation of sub-committees in each teaching department to focus attention on

external teaching development should provide the consultative machinery required for such participation. Impetus for joint discussions between teachers and administrators will be provided by the recent decision of the university to change its academic year to a semester system. This will require restructuring of all courses which are now either a whole year or one term in length, and will have wide-ranging implications for external courses in particular.

Once the teaching material is submitted to the Department of External Studies and the schedule for the despatch decided upon, the typing, printing, collating and despatch of the material become the responsibility of the Director of External Studies. If there are tapes or cassettes or other audio-visual media to be included in this material, he must also ensure that the Audio-Visual Centre is aware of recording and production requirements well in advance so that the tapes, films or slides can be delivered to External Studies on schedule for incorporation with printed material. Packages are distributed to individual students by mail, but in recent months, the unreliability of postal services because of industrial disputes has also required the negotiations with road transport and courier companies to provide emergency delivery services if necessary.

(b) Counselling and student services

At New England, considerable emphasis is given to caring for our external students as individuals despite the growing numbers which have just reached 4,000. Indeed, we are sometimes accused of being too "paternal", but in many ways this criticism reassures us that we have still managed to retain our original philosophy of making the student feel that his progress and problems are of concern to both academic and administrative staff of the university. Perhaps more than any other single factor, this attitude, reflected in prompt attention to student inquiries, sympathetic response to his problems, whether they be personal or academic, and constant reviews of student progress, has contributed to the sense of identity with the university that most of our external students develop. The fact that eighty per cent of our external graduates come to Armidale for the annual graduation ceremony every April bears testimony to this.

One of the central functions of the Department of External Studies is to monitor the progress of students in close collaboration with teaching departments and to provide advice and encouragement through correspondence on matters pertaining to their studies. Monitoring student progress involves the maintenance of accurate records of the receipt and despatch of assignments (about 40,000 per year) and tapes, of which there were about 3,000 this year with a three or fourfold increase expected next year. From these records regular reviews are made and defaulting students reminded of their overdue work. In cases of illness, accident or other unforeseen circumstances, extensions of time for the submission of work are given, according to policies determined by the teaching departments. In serious cases of failure to meet course requirements, students can be withdrawn by the faculty and deemed to have failed.

In matters of correspondence, students are urged to write to the Director of External Studies rather than to academic staff direct. If students wish to retain confidentiality with teaching staff, they are advised to enclose their letters in a sealed envelope addressed to the lecturer concerned and request the Department of External Studies to forward it. The handling of correspondence in the first instance by the Department of External Studies has some important advantages:

(i) Many enquiries are concerned with administration, policy interpretation and faculty requirements which can be answered without reference to teaching departments.

(ii) Academic enquiries are referred to the appropriate course co-ordinator or tutor, but if he is absent other members of staff can be approached for a reply.

(iii) Inconsistencies in treatment by various departments are minimized.

(iv) The burden of composing replies and having them suitably presented in typed form is carried by the Department of External Studies, rather than academic staff.

(v) Urgent enquiries can be relayed to academic staff by phone, answers obtained and, if necessary, a telegram sent in reply to reduce delay.

This centralized process not only has worked very satisfactorily for both students and staff, but provides a continuous overview of the system and allows for prompt remedial action wherever deficiencies are detected.

An individual-centred approach has been possible to maintain through the retention of a comprehensive filing system in which a personal file is kept on every student. Each file includes every item of his correspondence from the first enquiry, our replies to him, his academic record, his photograph and signature and, of course, name and current address. Such a dossier can build up quite a clear profile of the student, and I sometimes think that we know a good deal more about some of our external students than we do about many of our internal students.

Other services are also provided by the department. Class lists and geographical rolls are despatched to all students. These are used to form local discussion groups or to assist students in making contact with one another to discuss mutual problems or seek moral support. Early each year we also ask some of our graduates to call meetings of students in their local areas to assist in this process of student interaction. Throughout the year, per medium of the External Studies Gazette, students are kept informed of general university developments, proposed changes in course offerings, innovations in teaching methods and other matters likely to be of interest to them. The Gazette also provides a ready means of conducting surveys and seeking general responses to important issues. An enrol-

ment prospectus, External Studies, is also prepared each year mainly for intending applicants. More detailed advice is given in a Guide to External Students issued to all students after enrolment.

(c) Staff-student contact

One of the most important co-ordinating functions of the Department of External Studies is the organization of residential schools. These are compulsory for all but one or two first year courses and several later year term unit courses where week-end schools are considered more suitable. The co-ordination of this exercise begins about June of the preceding year, when the requirements of each department are collated and submitted for approval to the External Studies Committee and Professorial Board, so that the respective dates of each school can be included in enrolment publications that are posted to applicants from early in October each year. This information is necessary to allow for course selection, which has to avoid residential school clashes. Furthermore, applicants must have a clear idea of compulsory course requirements before accepting enrolment in a course, since there is no point in their enrolling if their attendance at a residential school is not possible.

A second phase in residential school organization begins early in the academic year in preparation for accommodating up to 2,000 students during the May vacation between first and second terms. Being a residential institution, the University of New England has a distinct advantage over the Open University in this respect, since it does not have to rely on other institutions to provide beds, lecture rooms and other facilities for this purpose. The mounting of residential schools on campus also has the very real benefit of allowing externals to see their university and enjoy at least a brief period of traditional university life as a full-time student in residence. It is also desirable that university facilities are utilized all the year round, especially when rising operating costs are making it difficult for the colleges to balance their books as they are expected to do. They simply cannot afford to stand empty while internal students are on vacation. In fact, the opposite occurs, because our growing external student population is making very heavy demands on the available accommodation.

A few weeks prior to each school, the Department of External Studies obtains academic programmes from each department involved in schools, allocates lecture rooms and prepares a comprehensive handbook for students. This booklet covers all kinds of items from academic timetables, transport schedules, study room allocations and even advice on suitable clothing for what has traditionally been described as Armidale's "bracing climate". At an altitude of over 1,000 metres, Armidale in May and August can experience morning temperatures well below zero (celsius).

Co-operation is also sought from the Students Union, which organizes sherry parties for subject groups to facilitate informal staff-student interaction, film evenings, debates and other social and cultural functions. The Sports Union also provides full recreational facilities while external students are in residence, and the library extends its hours to cope with the sudden intensive use from hundreds of students anxious to make the most of their few days on campus.

During the schools, the Department of External Studies plays host by providing morning and afternoon teas to students who are encouraged to visit the department and meet staff personally, acts as a clearing-house for incoming student mail, records arrival and departure times for every student and provides an advisory service for students who may wish to discuss a problem or plan future study programmes. Once the schools are completed, the final administrative task is to write to all absentees and invite them to show cause why they should not be withdrawn from the course concerned for failing to meet course requirements. These cases are then presented to the External Studies Committee for consideration. In a few instances such as ill health, exemption from attendance will be granted, but failure to attend generally results in withdrawal from the course.

The department is also heavily involved throughout the year in organizing week-end schools in various centres throughout the state as well as in Armidale. Although attendance at these schools is voluntary, they are important supplements to course material and residential schools. Teaching departments determine their own week-end school programmes, venues for the schools and who will staff them, but the Department of External Studies is called upon to make the necessary arrangements with the host institution concerned. This is generally any one of the three universities in Sydney with whom we have an excellent working relationship, but on occasions, high schools in country centres are used as well. Lecture rooms, audio-visual facilities and even laboratory space are provided for these week-end schools at no cost, except occasionally a small charge for janitorial services. Notices are sent to all students in the course concerned in advance, to allow them time to make travel and accommodation arrangements. Attendance is at students' expense, but this does not deter them from travelling several hundred miles if necessary.

In addition to residential and week-end schools, visits to students in their home towns are made every year by the director and his senior staff, who cover most of the state of New South Wales in about six broad sweeps, each of which involves from five to ten days on the road. Advance notice of the planned itinerary is given and meetings are held in the larger centres to discuss matters of general interest, as well as individual problems. We also take these opportunities to talk to prospective applicants about enrolment for the ensuing year. More isolated students are visited en route at their schools, in their shops or on their farms. This personal contact undoubtedly has value for both parties. Firstly, it breaks down any reluctance on the part of students to seek help when things go wrong and secondly, it provides essential feedback on how the system is operating from "the other end". Recently academic staff have been making similar tours in order to conduct intensive tutorial sessions with small groups of students in various localities. This activity is to be encouraged, but

because a wide choice of courses is offered it is not always easy to find a cluster of students in one town studying the same course.

(d) Other functions

In many respects the department is also an external registrar. The Director of External Studies enrols all external students at the beginning of each academic year in accordance with enrolment policies and quotas determined by the External Studies Committee. Selection as such is not on the basis of academic merit. A number of other variables, however, must be taken into account. Continuing students have first priority, then new applicants from country areas not served by other universities, and finally new applicants from Sydney where there are some opportunities for part-time evening studies. Enrolments must not exceed quotas which are set for every subject, residential school clashes have to be avoided and degree patterns carefully checked to ensure that they comply with faculty regulations. It is a rather more complex exercise than for internal students, and it is made more difficult by the fact that applicants are spread all over Australia and many are moving about during January, which is not only the height of the enrolment period but also school holidays.

Although the academic secretary (for registrar) is responsible for the conduct of examinations for both internal and external students, the Department of External Studies accepts responsibility for establishing examination centres for external students throughout the country. This involves finding suitable persons to supervise well over 100 centres three times a year, in May, August and November. In most cases, clergymen are chosen for this task, not only because of their reputation for integrity but also because they can generally provide suitable examination facilities in church halls. They are also, quite naturally, happy to accept payment for this important and exacting function, which must be carried out with meticulous care to ensure consistent and fair conditions for all candidates who sit for their respective papers at the same time as internal students.

The Department of External Studies also maintains statistics on external student numbers, their characteristics (age, sex, marital status, matriculation status, occupation etc.) and performance. Unfortunately details of these statistics cannot be included here, but two points at least should be mentioned in passing. One is that external students have consistently performed as well as their internal counterparts throughout the twenty year period of external studies at New England. The second point is that there seems to be no significant correlation between secondary school educational experience and university performance of the mature, motivated external student. The University of New England has recognized this for many years, having accepted at least one quarter of its external students with less than the normal entrance qualifications. Last year we took in a small experimental group on the basis of letters submitted explaining why they thought they could succeed at university studies even though their educational backgrounds would have suggested otherwise. This group performed as well as other external students, having a pass rate of 85 % and recording their fair share of credit and distinction grades. This result, of course, was no surprise to us. We have always believed in a liberal admission policy for mature aged students, and only quota restrictions and excessive demand for places have prevented the implementation of an "open university" as far as admission of external students in concerned.

CONCLUSION

External studies at the university level is a challenging enterprise, both for the institution concerned and the students who seize this particular form of opportunity for higher education. Anyone who has studied for a degree while in full-time employment knows what sacrifices have to be made to succeed. Proving something to oneself is often reward enough for those who missed the academic bus as school leavers, but once the euphoria of graduation has passed, it is inevitable that most new graduates at almost any age will also expect something more tangible than self-satisfaction. They will certainly expect their graduate qualifications to stand up to scrutiny beside a degree obtained in a more traditional manner, that is, as an internal student. Graduates by external study from the University of New England have no fears on this score, because of the demonstrable parity of standards between both groups of students.

I believe that the integration of the two forms of teaching commitments, the development of an imaginative use of a variety of methods and media to meet the very real problems of "teaching at a distance", and the co-ordination of the system through an administrative unit, has been a most successful formula in the Australian context. It is of course just one formula among many, as a conference such as this clearly shows. It may, or may not, be the "right" approach in another environment. Indeed educational "transplants" can be just as risky as the surgical variety, and are in danger of rejection if they are not suited to the needs of the community concerned or are incompatible with its educational philosophy.

However, there are two or three principles which I believe should underlie the establishment and development of any external studies system at the tertiary education level, whatever the precise details of its operation might be. These principles are as follows.

1. The off-campus teaching-learning process should integrate both independent learning techniques and various forms of direct student-staff interaction.
2. This process must be supported by an efficient servicing unit to ensure that teaching effectiveness is not jeopardized by organizational deficiencies, one of the greatest sources of frustration for external students.
3. There must be provision for counselling on a continuous basis throughout the academic year. Such a service must be prompt and compassionate, or students in difficulties may concede defeat and withdraw prematurely.

A final word. The acceptance of the three aforementioned principles also requires a generous approach to the matter of providing adequate funds for the purpose. Although external studies programmes are sparing of expenditure on capital buildings and equipment compared with traditional forms of teaching, teaching at a distance cannot be done effectively "on a shoestring". In fact, the Australian Universities Commission in Australia is prepared to accept the view that recurrent expenditure allocations on a per capita basis need to be larger for institutions which have external students. The commission agrees that the special teaching techniques and supporting services employed by such universities as New England and Macquarie in external studies programmes reflect a greater investment of resources per student than teaching internally does, at least in the humanities subjects. I hope that this paper succeeds in explaining why this should be so.

APPENDIX A

Extract from a booklet produced by the Department of External Studies at the University of New England, entitlet The Teaching of External Courses.

"First Batch of Teaching Material

This information is based on queries and problems raised by students in various courses over several years. Obviously, there are differences among the courses offered, but basically every student is entitled to expect specific direction in his studies from the outset. For this reason the first despatch of lecture material might contain:

(i) *The Introductory Unit (suggestions for content are shown below).

(ii) Lists of reference books and journal articles held in the External Studies Collection.

(iii) A memorandum giving details of any weekend school to be held in First Term and, if possible, the programme for the whole year.

(iv) Course material, including study guides, original written material, supplementary reading material; enough to keep the student busy for at least four or five weeks.

(1) *The Introductory Unit

This unit should be compiled to serve as a handbook for the course. It is therefore best presented as a single booklet to which students may frequently refer throughout the year (or term). You may wish to use coloured pages to indicate various sections for easy reference. The following items are suggested:

(a) General welcome to students reading a subject for the first time, from Head of Department or course co-ordinator. (This information will vary for students in subsequent years.)

(b) Names of the lecturers concerned with the course, the course co-ordinator and the Head of the Department.

(c) Description, scope and content of the unit or course, and how it relates to the broader discipline. This is particularly important where there is a distinct change in emphasis in the subject at university level from that taught at school.

(d) Objectives of the course, specified in behavioural terms, that is in terms of learning patterns that students will be expected to acquire, e.g. to recognize certain phenomena, to translate principles into other terms – to act on them or apply them, to interpret data – to analyse them and predict further results or to show an awareness of corollaries, consequences and applications.

(e) A timetable for the whole-of-year course or term unit showing proposed number of batches of study material and probable content of each.

(f) Method of approach to be followed:

How the texts are to be used;

Whether assignments are to be used for teaching and/or assessment purposes;

Whether the course timetable is parallel to the internal course;

How weekend schools are to be integrated into the course;

The function of the residential school;

Notes on practical work, tutorial discussion, key lectures.

(g) Suggested study plan which will indicate to students emphases on certain topics and desirable rates of progress throughout the term or year. This programme of study might be broken up into units of study (e.g. fortnightly or monthly) to show:

Course material to be read,

Other essential reading, e.g. related chapters in texts or relevant reprinted articles.

Suggested reading; library books, journal articles.

Appropriate tapes or slides (if provided).

Related assignments and due dates.

Self-assessment tests to be completed.

(h) Tentative week-end school programme.

(i) The first assignment at least; if there are a number of assignments for the term or year, some others could be mentioned.

(j) Advice on assignment presentation. This should include:

(i) Due date; a statement of your policy on the granting of extra time for the submission of written work; penalties for late submission.

(ii) Length of assignment; a note on penalties for unreasonable variation from the number of words specified.

(iii) Reading lists for assignments.

(iv) An indication of the weighting of assignments in the final assessment of the course.

(k) Final assessment. What form the examination will take, i.e. objective test/essay type questions; number of questions and internal choices; division of papers between main areas studied.

If a course is being offered for the first time some specimen questions may be helpful.

(l) Course requirements, i.e. conditions under which a student may be withdrawn from a course or unit and be deemed to have failed.

Subsequent Batches of Material

The timing of the despatch of other batches of teaching material is important, particularly when a residential school or an examination period is approaching. Since mail delays of up to a week are not uncommon (e.g. to those in the Deniliquin area whose mail goes viz Melbourne), and a student must be left reasonable time in which to assimilate material he receives, it is best if no material is sent during the two weeks before a residential school or term examination. In the case of whole-of year courses you should avoid sending any material after October. Certainly, no material should be sent to students after the last day of lectures.

You may find it necessary to send out circulars and memoranda in addition to the main body of teaching material. For example, it may become apparent at a week-end school that students are experiencing difficulty with a particular aspect of the work, or question about examinations is raised. In such cases all students enrolled in the course should be advised in a circular of the additional information which has been given to those who attended the week-end school.

External students expect – and are expected – to study during the University vacations, so material can be despatched to them at any time throughout the year provided that reasonable time is given for revision and examination preparation. Please remember however that external students usually have many commitments other than University studies and should therefore be given every opportunity to plan their study programmes well ahead to suit their particular circumstances. Sending packets of material "out of the blue", while providing a challenge to their organizational abilities, may be interpreted by them as evidence of lack of planning at this end."

Implications of the Open Learning Trend for Distance Education in Australia

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A governmental committee has recommended the opening up of opportunities for tertiary education in existing colleges and universities rather than the creation of a new national open university in Australia. This proposition will have a number of implications for distance education:

* A growing emphasis on the provision of distance education.
* Distance education will become a normal and integral part of the educational programmes of colleges and universities.
* Research and investigation into the methods and media of distance education will be promoted.
* The development will encourage the integration of on-campus and distance learning modes.
* A greater proportion of adult students will study in tertiary institutions.
* The open learning trend will encourage the concepts of recurrent and concurrent tertiary education.
* The pressures on young people to proceed direct from school to higher education will tend to be removed.

Introduction

I have limited my contribution to this topic to a review of the open learning trend in tertiary education in Australia and to an examination of the implications of this trend for distance education at tertiary level in Australia.

In confining my remarks in this way, I do not wish to underestimate the significance of the open learning trend as a world-wide phenomenon or its importance at all levels of education. I have taken the view that my contribution will be the more valuable by dealing in some detail with the level of education with which I am best acquainted (tertiary education) and by confining my discussion to the situation in my own country.

Open Tertiary Education in Australia

The University of Queensland in Brisbane enrolled its first external students in 1911 and has had a continuing commitment to distance education since its inception. In 1973 it enrolled 3300 external students.

In New South Wales, the University of New England at Armidale commenced external degree studies in 1955 and Macquarie University in Sydney commenced external degree studies in science in 1967. In 1973 New England had 2500 external students and Macquarie 580.

Following a major survey of the future of tertiary education in Australia in 1964 [1], a number of new universities and a large number of colleges of advanced education were established. The colleges of advanced education now number 79 throughout Australia. Many incorporated existing institutions such as senior technical institutes and teachers' colleges, whilst others were established as entirely new institutions. They offer courses of a more vocational nature than the universities and concentrate largely on first degree and diploma programmes with only limited development at the post-graduate level.

In addition to the development of external studies in the universities referred to above, a number of the colleges of advanced education have also commenced off-campus teaching, although none as yet provide distance education on a scale equal to that in the University of Queensland or the University of New England. Overall, then, tertiary institutions in Australia have had a relatively long involvement in off-campus teaching and have always accepted a major role in catering for adult students, both by external studies and part-time on-campus studies. In 1973 for example, there was a total enrolment of 13 841 students in external courses offered by Australian universities and colleges. This represents a higher participation rate in off-campus education, on a population basis, than the 1973 enrolment of 42 000 students in the British Open University.

After 23 years of conservative governments in the Federal or National parliament of Australia, a Labour Government was elected to office in December, 1972. Since assuming office, the Labour Government

has taken a number of important initiatives in education aimed at extending opportunities generally, but with special emphasis on the improvement of opportunities for the socially and economically disadvantaged members of the community.

As part of this programme, the Australian Minister for Education in March 1973, appointed a Committee to "enquire into the possibility and means of extending opportunities in Australia for extra-mural degree courses of university standard and to make recommendations to the Australian Universities Commission." The Australian Government was motivated by much the same considerations as those which had moved the British Labour Government to establish the Open University in the United Kingdom. The Australian Open University Committee was charged, therefore, in its terms of reference to "conduct its enquiry having regard to the aims and methods of the Open University in the United Kingdom and to the position of persons who are unable to meet the normal entry requirements of universities." The intention was clearly to seek the means by which tertiary ecucation could be extended widely to working adults, housewives and others who, for one reason or another, had not been able or willing, to proceed direct from secondary school to university or college. The Committee published a draft report – Open Tertiary Education – in April 1974 [2] and after receiving considerable public response to the draft report, will complete its final report in late 1974 for publication in early 1975.

The Open University Committee received a very large number of submissions from universities, colleges of advanced education, professional bodies, trade union organisations and interested individuals. The basic issue which confronted the Committee was whether the opening up of tertiary education to a much wider cross-section of the Australian community, and particularly to adults who had missed the chance of a tertiary education on leaving secondary school, would best be achieved by the establishment of a single Australian open university on the same lines as the Open University in Britain, or by encouraging the further "opening up" of existing colleges and universities.

After very extensive enquiries, the Committee came down firmly in favour of opening up opportunities for tertiary education through the existing colleges and universities.

This decision was based on the willingness of the great majority of Australian universities and colleges to move away from a closed elitist concept of tertiary education and the significant steps already taken by many of these institutions to extend tertiary educational opportunities to a wide cross-section of the Australian adult polulation. It represented an acknowledgement by the Committee of the major commitment accepted by many colleges and universities to the provision of part-time studies and the extensive provision made in a number of those institutions for distance education.

The Committee acknowledged that its proposals for the opening up of tertiary education in Australia would not greatly increase the representation at universities and colleges of the lowest socio-economic groups. It pointed out that the disadvantages suffered by these groups operate well below the threshold of tertiary education and any amelioration of their handicaps will require reforms, not only in primary and secondary school, but also in society as a whole. The Australian Government had recognized the importance of bridging the gap for those people whose schooling ended well below entry level to tertiary education, and concurrently with the enquiry into open tertiary education, another Committee – the Australian Committee on Technical and Further Education – investigated the needs of the Australian society for better opportunities in the intermediate level of education between the completion of compulsory schooling and tertiary education. This Committee's report [3] has also stressed the importance of opening up opportunities for people of all ages and educational backgrounds to re-enter the educational stream.

If the recommendations contained in the two reports are implemented, it will be possible for an adult member of the community who has completed no more than minimum compulsory schooling to undertake courses of study appropriate to his educational level as part of the proposed programme in further education. These studies could, in turn, qualify him to enter a tertiary institution for studies at degree level.

It remains to be seen how successful Australia will be in genuinely opening up formal education, particularly at the tertiary level. Experience overseas suggests that the removal of many of the traditional barriers to access to tertiary education does not substantially or immediately increase the proportion of lower socio-economic groups participating in tertiary education. The experience so far gained in Australia, as well as that of the British Open University, suggests that professional people such as teachers, are those who are first to take advantage of enhanced opportunities for adult education at tertiary level. Clearly, factors which govern the motivation of adults to undertake tertiary education are involved and, accordingly, a genuine learning society will not result simply and quickly from removing barriers to access to tertiary education. The Australian Committee on Open Tertiary Education saw the achievement of a society in which education and living are fully integrated as a strategic long-term future goal. Its recommendations were intended to remove, as far as possible, the barriers to access to tertiary education generally, both for career purposes and for personal enrichment. This is only one of the changes which will be necessary in society if we are to achieve a genuine life-long integration of living and education for all individuals.

Implications for Distance Education

The move to open up educational opportunities in Australia was seen as helping to promote equality, correct disadvantage, and reduce the extent to which the present educational system was felt to perpetuate privilege. There are many barriers to access to

tertiary education other than that of formal entry requirements. Perhaps the most obvious barrier in a country the size of Australia is a geographical one. With the large concentrations of population in seaboard cities, it is impossible for Australia to comtemplate the establishment of universities or colleges within easy reach of everyone in the immense sparsely populated inland regions. It will be very clear, therefore, that the opening up of tertiary education in Australia must necessarily involve considerable development of facilities for distance education. Significantly, distance education is becoming equally necessary to cater for urban as well as rural communities. In the larger Australian cities there is a growing number of people who cannot take advantage of opportunities for part-time on-campus study at colleges and universities. The large surburban development in Australian cities pose problems of movement which are in some cases no less acute than the problems of distance in non-urban areas. In addition, many people are unable to undertake part-time on-campus studies because of occupational commitments, family commitments, physical disabilities and so on.

The first and most significant implication of the opening up of tertiary education in Australia will be a growing emphasis upon the provision of opportunities for distance education.

The Australian Committee on Open Tertiary Education recommended the encouragement of external studies in a number of existing colleges and universities rather than the establishment of a single national open university. This decision, too, has significant implications for distance education. Although I have mentioned the considerable development of off-campus studies in Australian universities and colleges, it is true to say that these were the exception rather than the rule in Australian tertiary institutions. Many academics in Australian universities and colleges still regard external teaching with suspicion or have deep-seated reservations and doubts about off-campus teaching. For many academics this attitude is no more than a reflection of the conservatism and fear of change which appear to be characteristics of the academic profession. For many, no doubt, their opposition to distance education reflects their fear of the harder work which might be involved in the preparation of distance learning materials and the use of unfamiliar media.

Given that this type of conservatism exists to some extent in universities and colleges, a decision to create a single national open university or college may well have encouraged existing tertiary institutions (which number almost 100) to feel that they had no responsibility for the opening up of their educational programmes to a much broader population. In short, such a decision may have encouraged them to confine their activities to essentially the on-campus teaching of full-time students proceeding direct from school. The decision to encourage and develop off-campus teaching in a network of institutions throughout the country, is much more likely to have the effect of establishing distance education as a normal and integral part of the educational programmes of a large number of universities and colleges in Australia. With this result in mind, the Committee on Open Tertiary Education has recommended the establishment of a National Institute of Open Tertiary Education to facilitate the expansion of tertiary education to meet the needs of all sections of the community. Specifically some of the objectives of the National Institute of Open Tertiary Education are:

(a) to facilitate the removal of barriers to entry based purely on formal qualifications;
(b) to maintain and expand opportunities for off-campus study;
(c) to encourage the transfer of students between institutions;
(d) to provide information on the opportunities available for higher education;
(e) to encourage innovation in teaching and learning methods and the use of educational technology;
(f) to recommend financial support for research and development in off-campus teaching and learning methods.

This proposal has important implications for distance education in Australia. It can be expected that an increasing proportion of tertiary students will be off-campus students. It can be expected that serious research and investigation will be undertaken into the methods of distance education and into the use of new media and educational technology. This emphasis at the tertiary level will hopefully result in significant developments in the methods of distance education at all levels of education. Perhaps the most important implication for Australia is that the acceptance of distance education by established colleges and universities will remove, for all time, the stigma which has attached in the past to this mode of learning in the more traditional tertiary institutions. One can hope that distance education will no longer be seen as a peripheral responsibility of one or two universities and that the off-campus student will not in future be the second class citizen in tertiary student populations. The provision of distance education may well become the primary function of a number of Australian colleges and universities.

The development of distance education as an integral part of the education provided by colleges and universities is likely to encourage a much greater integration of the methods used for both on-campus and off-campus students.[4] Many of the learning materials used in external teaching are being employed increasingly in on-campus teaching. They promote, in many cases, more effective learning than the expository lecture and allow the student to choose his own time for study and the pace at which he proceeds. The development of distance education side by side with traditional on-campus education in colleges and universities may well see benefits for both in the use of new modes of learning and multi-media learning materials.

On-campus students could benefit from the opportunity to undertake much of their studies at times of their own choosing, at their own pace and in a place of their own choosing – perhaps the library, the cafeteria or at home. A timetable largely freed of scheduled formal lectures would allow greater flexibility for the arrangement of less formal staff-student discussions, seminars and tutorials at times and

places to suit the different needs of student groups with different occupational, family and community obligations.

Perhaps we have tended too readily to think of internal studies as entirely student-lecturer or group interactive learning and external studies as entirely individual learning. In fact, internal studies involves a very large component of individual learning and external studies can involve a significant component af student-lecturer interactive learning. Learning materials designed to assist, promote and facilitate individual learning on the one hand, and interactive teaching/learning on the other, should be components in the learning experience of all students. The actual mix of the two types of learning might then be determined largely by the student himself in the light of his individual needs and circumstances.

Incidental to the advantages which might accrue from the mix of on-campus and distance learning modes are the educational advantages of a mix of students of different generations within the one institution. The interaction of youthful enthusiasm and idealism with the worldly experience of adult students yields educational benefits for both age groups.

There is another important implication for distance education of the plans which have emerged from the Australian enquiry into open tertiary education. The opening up of tertiary education recognizes that it is no longer tenable to see tertiary education simply as a final stage in a continuous sequential process which provides a preparation for life. We must now see tertiary education as a process which increasingly will be continuous throughout life and an integral part of it. This view has led to the concept of recurrent education in which an individual's education continues throughout his life in alternating periods of full-time study and full-time work. A recognition of the full potential of distance education will allow a concept of concurrent education in which the mode of learning is designed to meet the needs of an adult in full-time occupation with all of the normal social and family obligations which go with it. Concurrent education which becomes possible through distance teaching/learning has the important advantage for society at large that the student can continue in productive employment. There is, in addition, a growing body of evidence that the interaction of formal study and work and other adult social activities is a powerful factor in the educative process.

The Australian Committee on Open Tertiary Education questioned seriously the advisability of encouraging more and more young people to proceed direct from secondary schooling to higher education. The Committee noted that the trend to more and more staying longer and longer in full-time education has produced many social tensions and conflicts. If the Committee's recommendations succeed in achieving an opening up of tertiary education to an extent that opportunities for higher education are available to adults throughout their lives, the pressure on young people to proceed direct from school to college or university will be significantly reduced. In the long term, the provision of adequate opportunities for continuing life-long tertiary education could significantly change the character of the student population in tertiary institutions in Australia and could lead to a progressive reduction of the social tensions and conflicts which appear to be produced by an extended period of full-time sequential education.

Perhaps the proposals which I have outlined for the future development of distance education in Australia will remove a basic assumption which appears to have underlined much of our thinking about tertiary education for a very long time – the assumption that tertiary education is primarily an activity confined to the ages of 18-22 years, to the hours from 9 to 5 and to the space within the four walls of a lecture room.

REFERENCES

[1] Tertiary Education in Australia. Report of the Committee on the Future of Tertiary Education in Australia to the Australian Universities Commission; Commonwealth of Australia, 1964.

[2] Open Tertiary Education. Draft Report of the Committee on Open University to the Australian Universities Commission; Australian Government Publishing Service, April 1974.

[3] Australian Committee on Technical and Further Education: Tafe in Australia. Australian Government Publishing Service, April, 1974.

[4] For this discussion of the integration of on-campus and distance learning modes I have drawn on an earlier article – Max Hopper: The Colleges and the External Student in Whither Advanced Education, Proceedings of the La Trobe Conference, May 1974; Federation of Staff Associations of Australian Colleges of Advanced Education; Melbourne, 1974.

Openness in Education and the Off-Campus Mode

Recent Developments in Australia

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This paper should be read in connection with and as a supplement to that of Mr. Hopper.

The paper gives a survey of different types of institutions for tertiary education in Australia. It points out that there has been an increasing openness, particularly in entry, and evidence points strongly to the success of mature students. A completely open access is, however, generally opposed and some tests of demonstrable capacity have been required.

Students, external or otherwise, will be required to play a greater part in their own education. Information, counselling and careers guidance services are seen to be in need of great improvement.

Correspondence courses or external studies were originally conceived as a means of providing for the educational needs of persons far removed from the teaching institution concerned or occasionally for those who, for medical or other reasons, were unable to attend classes.

There has also been a good deal of discussion about external study being a cheaper means of providing educational services. However, it is now becoming more generally appreciated that the primary purpose of external study is to make educational facilities available to persons who would not otherwise have the opportunity of pursuing their studies. Whether the reason is distance, medical condition or personal desire is largely immaterial. Relative cost is not necessarily a factor.

The Commonwealth of Australia consists of six separate states, and there is considerable lack of uniformity not only in organisation and facilities, but also in nomenclature. In what follows, an attempt is made to give some indication of the total picture, although inescapably one pays some special attention to Victoria.

THE TERTIARY EDUCATION SYSTEM IN AUSTRALIA

In general, throughout Australia there has been a tripartite system of tertiary education. Universities enjoyed the highest status and were usually accorded the dual function of engaging in teaching and in extending the range of man's knowledge. A number of non-university institutions, including multi-disciplinary senior technical colleges and specialised institutions such as colleges of pharmacy and agricultural colleges, provided a very wide range of services in which application of knowledge played a more significant role. All of this second group of institutions is now included under the term 'colleges of advanced education'. Additionally there were teachers' colleges, whose role was almost exclusively the training of teachers for state and other systems of education.

In only two states, Queensland and New South Wales, was there any significant and organized provision for external study in universities. The position in colleges of advanced education was much the same, but there was an overlap between tertiary courses and those now generally referred to as 'technical and further education' or middle level courses. These were provided in particular by state technical correspondence schools. A few teachers' colleges have provided and continue to provide some external study.

Early in 1965 there was published a report by "The Committee on the Future of Tertiary Education in Australia", generally referred to as the Martin Report. This report stated as its view that there had in the past been undue emphasis on university education and that the greatest need for expansion lay in the technological and business studies area.

In addition to the existing Australian Universities Commission the report proposed that there should be established in each state an Institute of Colleges and a Board of Teacher Education. The Victoria Institute of Colleges was established very shortly afterwards to control this sector of tertiary education in Victoria and much more recently there has been created the State College of Victoria to co-ordinate the work of what were formerly known as teachers' colleges. Bodies similar to the Victoria Institute of Colleges have been created in other states.

The Martin Report was very critical of external and part-time studies as wasteful and inefficient and suggested that such activities should be phased out of university programmes. However,

the Government of the day definitely disagreed with this proposal.

The mode of creation and development of colleges of advanced education has varied greatly from state to state. In all states other than Victoria, the disappearance of teachers' colleges as separate entities seems likely in the fairly near future. The bill establishing the State College of Victoria provides for a review after five years, but there seems a long way to go before the three tertiary streams in this state will be reduced to two.

None of Victoria's three universities has any external study programme. There have been many proposals concerning Victoria's fourth university but a recent bill before the Victorian Parliament indicates that this would almost certainly be the Deakin University to be established at Beelong. The bill includes the provision of the opportunity for tertiary education at university level to all qualified persons, whether within or outside Victoria, by means of external study programmes. It further provides for study centres in appropriate places throughout Victoria, where students taking external study programmes can have access to library and other study facilities and can be given tutorial and practical assistance.

For a person concerned with external study, the report of the Parliamentary debates on the Deakin University makes interesting reading. Speakers make constant reference to the inclusion of external studies as a vital feature, and to the development of regional centres.

There is a certain irony in the situation however as, despite all the talk about the development of external studies, the Royal Melbourne Institute of Technology still has no funds to permit growth or development, at least before 1976. The possibility of financing the additional services from fees received existed some years ago, but this is now completely changed. The system of government financing and the provision of free tuition for approved courses at all levels – secondary, middle level and tertiary – places the operation beyond the control of teaching institutions. For the first time in history, the RMIT in 1975 has had to apply a quota system to enrolments in external studies.

Although there has not yet been any recent significant addition to external study offerings by any Australian university, some of the newer colleges of advanced education have entered the field, thus making an appreciable addition to the service available in this sector. Such colleges include the Western Australian Institute of Technology, the Gippsland Institute of Advanced Education (Victoria) and the Tiverina and Mitchell Colleges of Advanced education (New South Wales).

TWO COMMITTEE REPORTS

Two reports issued this year by committees appointed by the Australian Government are particularly relevant to the development of external studies. The report published by the Australian Committee on Technical and Further Education is entitled TAFE in Australia, April 1974.

Some of the major recomendations of this committee were:

1. There should be unrestricted access to recurrent education;
2. We should make available self-learning techniques and material to all capable and motivated persons;
3. We should provide for the dissemination of self-learning facilities in conjunction with or additional to other external studies arrangements;
4. The services of social workers should be available to college students for counselling on personal, family or social problens.

Mobility of tutors and the establishment of study centres are also included as an essential part of the system.

The draft report of the Committee on Open University to the Australian Universities Commission was published in the same month under the title of Open Tertiary Education. In so far as the subject matter of this paper is concerned, most of its recommendations are included under the proposed functions of a national body whose suggested title is National Institute of Open Tertiary Education (NIOTE).

IMPLICATIONS OF INCREASING OPENNESS TO TERTIARY EDUCATION

The concept of life-long education, an alternation between study and work, is conceived as a desirable and perhaps inevitable development. A most important task is to extend opportunities in tertiary education to all sections of the community. These increased opportunities would refer to condiations of entry, accessibility, range of courses, modes of learning, diversity of institutions, transferability, flow of information and availability of finance.

At present, most entry to tertiary institutes is based on conventional qualifications, but it is advocated that the system should facilitate the entry of other students "with demonstrable capacity". This refers particularly to mature persons and in almost all cases where any action has been taken or proposed the minimum age is 20 years or higher.

It would be the task of NIOTE to survey the needs of the community and to take appropriate follow-up action. At the moment there are approximately 20 universities and 100 colleges of advanced education in Australia. It would obviously be unnecessary and

wasteful for all of these to undertake external study. It would be rather futile to force an external programme on any institution opposed to it. However, it should be possible to create a network of willing cooperative institutions which will provide adequate coverage without wasteful duplication.

In addition to this network of institutions the establishment of a much wider cover by means of study centres would be vital. The information, counselling and careers guidance services are seen as utterly inadequate. The increasing complexity not only of society but of educational institutions leads to an increasing need for a greater and more reliable information service to be available. Completely open access has been opposed. The present concept is that there should be some test of motivation and capacity and that simply to apply should not be accepted as sufficient grounds for admission. It is in this context that bridging and threshold courses are particularly relevant. It would be a function of NIOTE to investigate the need for and the means of provision of such courses.

Some tertiary institutions in each of the three categories have taken steps to admit a number of students who do not meet the standard academic requirements. No attempt will be made to cover the complete range and some examples only will be considered in the hope that these present a reasonably balanced picture.

Take first the three universities in Victoria. The University of Melbourne has no significant programme to accept students other than those formally qualified by holding the H.S.C. in the appropriate subjects or by having obtained qualifications accepted as equivalent to this. Monash University commenced a limited scheme for special entry in 1974. This applies to persons who have been left school for not less than 4 years and who do not have the H.S.C. or its equivalent. Applicants are required to state the nature of their educational disadvantage, are required to take tests in reasoning ability and, for some faculties, in mathematical ability. Those meeting these requirements satisfactorily are then invited for an interview. Up to 2% of the quota in each faculty may be admitted on this basis.

The School of Humanities of the Latrobe University introduced an early-leavers' scheme in 1972. Applicants are selected and admitted after the submission of essays and special tests set by the Australian Council for Educational Research, followed by personal interviews with academic staff. 19 of the 20 students admitted completed the year successfully, the other having withdrawn during third term. The scheme has continued and expanded and it is expected that in 1975 the entry will be of the order of 100 for the School of Humanities, 20 for the School of Social Sciences and 15 for the School of Physical Sciences.

The Universities of New England and of Queensland have for some years admitted students, particularly teachers, who have not held formal matriculation qualifications. The schemes have operated with complete success.

The Murdoch University, Western Australia, is to enrol its first students by 1975 and has planned for a much broader approach than has been normal in Australian universities. Not only does it propose the establishment of external courses and of regional study centres but there is special concern with persons whose interests move in the direction of life-long education. The university appreciates that the maturity and motivation of such students tend to make them more successful than what might be called normal enrolments.

I do not have a statement of the method of selection to be used but there is clearly to be a place for talented adults who have not completed a school course. The admission procedures are to emphasise attitudes rather than performances and remedial courses are to be provided where inadequate backgrounds indiciate the need. As a general policy, and not simply for external students, considerable responsibility for learning will be placed on the students themselves.

Similar plans are proposed for colleges of advanced education and state colleges. For example, the Swinburne College of Technology in Victoria is planning to expand its special mature-age entry scheme and the State College of Victoria at Bendigo has advertised a similar scheme for 1975.

There is every reason to be optimistic about the performance of mature entrants. Comparative figures are available from the Salisbury College of Advanced Education, South Australia, which introduced such a scheme in 1970. Selection has been based on an essay, a standard entry test designed to measure potential for tertiary study and an interview. The overall college average for distinction and credits is 26 per cent, whereas it is 55 per cent for the mature students. The overall college failure rate is 19 per cent and for the mature students it is 4 per cent.

The extension of mature age entry to external students may require modification in some aspects. For example, the assembly of potential students for interview and the administration of tests may present problems. However, other criteria, including job experience, have already been used and may be further extended. Facilitating access to off-campus tertiary education may be the greatest possible single contribution to openness in education.

It is becoming more generally accepted that every encouragement should be given to persons who do not wish to complete a degree or diploma, but only wish to study some subjects. On the other hand, a warning has been sounded that the compulsory attendance requirement restricts accessibility. It has been the policy of the Royal Melbourne Institute of Technology, and I believe it is a correct one, to make attendance compulsory only where it is considered essential for the subject or course in question, e.g. for laboratory work in certain technical subjects, or for discussion in subjects such as supervision. At the same time efforts have been made to widen the range of subjects in which face to face facilities are made available, with attendance being encouraged but not made compulsory.

In Victoria the counselling and information centre problem has been approached by the RMIT by means of the establishment of a vocational orientation centre. The main functions of this centre are:

1. provision of information about careers, training courses and their prerequisites;
2. provision of assessment and counselling services to assist in career choice;
3. some limited remedial programmes where assessment reveals that a minor deficiency in a specific subject is the sole impediment barring success in a chosen career.

Thus the centre is to place initial emphasis on further education, training and retraining courses and related careers but is also to provide a similar service concerning tertiary education.

At the 9th ICCE conference Mr. Michael G. Moore submitted a paper in which he stated: "Apart from the expansion of correspondence study as forecast by sociologists and economists it will be more in demand for truly educational reasons. The theory of independent learning should not, therefore, give undue weight to the distance separating the learners and the teachers, nor to the communication media that can bridge that distance. It should reflect a growing commitment to the nature of idiosyncrasy, creativity and the maturing of every personality; to the development of autonomous learners."

It is in this spirit that off-campus modes have been introduced in the teaching of administration at the RMIT to 'normal' full-time and part-time class students. The subjects of management are concerned with three aspects – cognitive, affective and skills. The cognitive aspects are covered to a large extent by the use of tapes, mostly audio. It is thus possible to eliminate the time normally devoted in class to the pure transfer of information. Very much shorter attendance sessions are needed to deal with those aspects which require communication between persons.

At present the system is applied to class students only but by the use of an occasional 3-day weekend attendance it could readily be extend in reverse to external students.

It is my belief that much part-time evening teaching and learning is inefficient and that its replacement by external study would be to the advantage of students. This situation is being more readily appreciated and I forecast that in the next 5-10 years many of the courses now taught by part-time evening study will be transferred to the external mode, with some attendance tutorials as indicated above.

In Australia, in recent years, there has been a considerable advance in theory, and a small advance in practice, in:

(i) a realisation of the need for the provision of adequate information on courses available;

(ii) an appreciation of the need for initial counselling and subsequent guidance;

(iii) the greater part to be played by the student in accepting responsibility for learning;

(iv) an appreciation of the value of student-student and student-teacher contact.

In respect to this last-named, visits by teaching and administrative staff to meet external students at selected centres are now fairly general practice. In most cases the same persons are responsible for the preparation of courses and the correction of students' work, so that there is adequate feed-back.

It is reasonable to expect major development in the external study scene at tertiary level in Australia in the next few years. If this is not so, a tremendous amount of lip-service will have gone to waste.

Distance Teaching in Developing Nations

A Study of Motivational Trends and Constraints in India

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The developing nations are facing serious obstacles in establishing working units with distance education programmes. It is the purpose of this paper to underline the environmental and administrative problems of these units – on the strength of experiences in North India.

The paper claims that the institutions have failed to introduce distance education as an effective, individualized mode of instruction. Thus, the students hardly get the motivation needed to pursue the courses.

Nevertheless, the author is optimistic about the future of distance education. The task is stupendous and leaves an unlimited scope for those involved in the programmes. It demands a frantic effort on the part of the governments, and international consciousness to assist the developing regions.

INTRODUCTION

'Managementism' has affected all areas of human life including organization of education. Since culture and attitude of the people affect the pace of economic growth, and education plays a crucial role in changing them, the developing nations are making big efforts to deepen and widen the educational infrastructure. One such effort is concerned with the establishment of units with distance teaching programmes. These units use unconventional techniques and hence face the same managerial constraints and challenges as are faced by innovating firms during early stages of growth.

The emergent nations of the underdeveloped world are facing difficult organisational and financial problems of man-power development in the wake of socio-economic change. While all societies face problems of change, there are fundamental differences in the environmental variables of the advanced and the underdeveloped world. Firstly, these areas have not yet provided even basic educational facilities to a large section of the people. Consequently, the society is hardly aware of the alternative techniques of education, and the State aided institutions are the only leaders of social innovation. As a result the educational policies are hardly guided by the 'demand for new education' as is the case with developed regions. It is thus not surprising that the society is highly sceptic about distance education as a sound teaching method and the hard core of intellectuals continue to dub the new techniques and products as comparatively inferior. Second, the infrastructure for implememting the new education is inadequate and inefficient. For instance, the mailing facilities and the audio communication facilities like the radio and the television are provided by the inalert state machinery, and capacities are hardly available for teaching units as the general demand for these services is huge compared to supply. Thirdly, the educational administration is soft and weak with colonial traditions of carrying out mundane operations of mechanic nature. Fourthly, the difficulties and limitations of contiguous education and the need for individualized education have not yet been identified as is the case in economically advanced regions of the world. This has resulted in the obvious confusion about the objectives of new education and its unique role in transforming society. Fifthly, important personnel-employing sectors of the community viz. the emerging industrial sector and developmental administration of the State have not yet collaborated with the academic institutions for the supply of personnel. While beginnings have been made by a few industrial houses in metropolitan centres and there is some collaboration between the elite institutions and business, all in all, the business sector has failed to realize that happier adjustment in industrial communities is possible only as a result of better education and training of personnel. Unlike the case of multinational corporations and private educational units in advanced areas, the principal effort to initiate these courses has come from the State aided institutions. This situation has created financial constraints as well as lack of flexibility in the organisation and working of these courses. Lastly, the educational establishments have hardly tried alternative managerial techniques or identified motivational aspects for better services to the community. Consequently, the class method of education remains the socially accepted and ideal technique, and the traditional hierarchy dominated by the principals and heads provides an inbuilt mechanism of resistance to change.

It is the purpose of this article to underline the environmental constraints and managerial situations experienced by some new educational units in North India.[1] As underdeveloped areas with colonial background face similar problems, it is resumed that the analysis

would apply more o: less to the working of these units in other undeveloped areas of Asia as well.

THE HESITANT BEGINNINGS

Off campus distance education has just made humble beginnings in the developing regions. Thus, of the 100 universities in India, just a dozen universities have either started or propose to start new education. Besides, unlike the advanced countries, the programmes merely include the traditional courses oriented to standard degrees in arts and commerce. No attempt has been made to start job-oriented or skill-based courses aimed at imparting special education for business or professions.[2] The courses are traditional and there is no attempt to align education with the demands of the emerging industrial sector. Rather, the industry is sceptic about the use of traditional education in general for their establishments and distant education is thought of as one more attempt to multiply graduates without special skills and specialization.

Every innovation faces initial challenges and conflicts, and distance education in a developing area is no exception. The academic world discounts this education, thereby demoralizing the personnel associated with the challenging task. It is not appreciated that a society which could not meet the needs of "education for living" could hardly programme for "education for making a living". Basically, the system could not be viewed with faith even at the State and the institutional level and consequently, the newly set up units are experimental (and not 'permanent' administrative units) with all the demoralizing and dysfunctioning consequences on the personnel facing uncertainty and instability.

Success of any social programme depends on its clearly identified aims and objectives. Most of the programmes in developing areas lay stress on minimizing the "crowds at the campus" and providing education at "economic cost". That "individualized education" should be the core objective of new education has not been realized. Consequently, individualized services are nearly absent in these units and with the absence of this 'gospel' and philosophy, distance education could not have a strong social foundation. The new education is just a print-mail technique. The absence of this approach has done maximum damage to the cause of new education. A mild storm in the decision of some universities in opening their gates of examination halls to all aspirants (non-campus and non-correspondence) has given a big shock to some institutions to the extent of preparing a liquidation plan.

Besides lack of clear aims and objectives and the inability to render personalized services, the institutions have failed to introduce an effective method with attractive lessons, regular written guidance through response sheets, availability of books from book banks, regular contact camps and guidance from a trained and devoted faculty. The survey conducted by the author makes it obvious that the students get frustrated due to careless handling of his grievances, irregular supply of lessons, indifferent guidance or lack of guidance through response sheet and unplanned and inadequate contact camps. Thus, the students of correspondence courses hardly get the zeal, drive and motivation to pursue the courses.

THE PERSONNEL

The success of distance education depends on the services and availability of a highly experienced, motivated and devoted faculty. Security of service, social recognition and dynamic leadership are fundamental conditions for creating an ideal and functioning faculty. Since the State hierarchy takes this method as an experimental one without faith in its permanent utility, there is undue emphasis on 'self financing' which is termed as the only test of success. Top management has no continuity and the organization fails to motivate their faculty members facing uncertain future. Further, there is no effort to train the faculty in this specialized field of education. It is distressing to note that some important units teaching degree and post-degree courses for 4-6 years do not have permanent heads of the institutions and experienced trained and achievement oriented faculty members. Another dysfunctioning factor in this area is the poor and unmotivated administrative organization associated with these units. Most of the personnel has been recruited from routine administrative units and hence they are unable to understand the needs of off-campus students. Preregistration feed-back by advisers, meeting the needs of the student at the time of registration, inter-institutional and supporting services like assisting the student in continuing education at other units or helping in placement are some of the important services expected from a distant education unit. These services are conspicuous by their absence resulting in a large number of drop-outs at various stages.

STUDENT MOTIVATION

Do these institutions motivate and encourage the student who proposes to have his self-reneval? Motivation is possible with the help of personal contact through an organized field faculty. Itinerant advisers and teachers revolving around the regional centres are needed to raise the morale of the humble aspiring student. Modern distance education is not merely a 'correspondence unit' but a functioning organization with occasional contacts between the teachers and the taught. Most of the units in India identify this problem but except for a casual attempt to set up libraries by one premier unit, no attempt has been made to provide facilities in this direction.

All in all, the programmes lack basic facilities, planning and a devoted approach to the cause of this education. Unevenness of workload, inability to correct response sheets in time, lack of planning at all levels and indifference of the academic world towards the

problem of distance education are some of the unresolved problems faced by the organizers of this education in the areas experiencing social change.

THE NEW DEMANDS

There is, however, an optimistic note. Everyone of the nearly 100 students of North India who filled in the questionnaire or personally replied to the queries, are optimistic about the future of this education. While they accept the role of the written word through lessons, there is growing thirst for contact with the teachers at contact camps, periodical informal meetings and personalized services through enquiry letters. This indicates how the correspondence students are demanding progressive styles wherein the distant student gets occasional personal guidance through his supervisors and teachers. This trend is a pace setter in converting correspondence education into a dynamic distance education.

The students unanimously decry at the anonymity of this technique, absence of library and direct teaching facilities, unattractive lessons, untrained teachers, no attention to relatively below normal students and expensiveness due to poor office administration and staleness of lessons. Constructively, they expect the organization of formal groups associated with regionally based faculty members, introduction of skill and job oriented courses, greater frequency and proper planning of contact camps, setting of book banks, reduction of tuition fees and opening of regional centres with radio and TV instructions. It is obvious that the task is stupendous and leaves an unlimited scope for those involved in the programmes at different levels.

CONTIGUOUS VERSUS DISTANCE EDUCATION

With new media of education followed by modern units teaching unconventionally, distance education no longer remains a print-mail correspondence education. In developing economies, however, distance education is nothing more than correspondence education due to financial and managerial constraints. While the techniques are still in infant stages, the deterioration in contiguous education has given new dimension to the role of distant education. Most of the contiguous teaching units are unable to organize group-tutorials and as such the personal motivation and social inter-action benefit of contiguous teaching is fast disappearing. With acute shortage of funds and space, the classrooms are too crowded to enable personal contact. Under the circumstances, precisely written lessons are far superior to situational lectures. Obviously, properly planned and efficiently administered correspondence courses should prove educationally more fruitful than the course through contiguous methods in developing regions under the existing environment.

CONCLUSIONS

This frank statement of basic problems and constraints need not be dubbed as a pessimistic note indicating failure. These are the pangs of growth of a new social institution and the process of initial social inhibitions involved in the process. New education faces the stages of market development and growth, market maturity and market decline just like the life cycle faced by a product. Unlike private products, however, the life cycle stages of this social product are influenced by public policy and the cooperative attitudes of certain need-conscious sections of society like the business corporations. During the development stage of new education, committees and commissions make a case for new educational technology and suggest the starting of a few units on experimental basis and there appear a few new institutions on the social horizon. Success of such institutions encourages entry of more social entrepreneurs who become the ideal cases for others to observe and follow. Acceptance of the new techniques and initial zeal of the personnel enables the method to have continuous growth leading to market maturity. Maturity stage is, however, reached only in the long run and in the absence of innovating attitudes, the system starts to face new challenges which may put a brake to further development of this new system and style of education. The cycle is, however, severely distorted due to known constraints of under-developed areas. Soft administration, conventional approach of the faculty and the office, inefficient infrastructural services in the field of communications and unenterprising attitude of the institutions – all are known constraints in the development nations and the programmes are most likely to suffer from jerks and jumps leading to waves of optimism and pessimism among the personnel involved. It is not surprising, therefore, that this education passes through a very critical stage of infant morbidity with retarded growth in the wake of these handicaps and constraints.

The difficulties and handicaps stated above are not insurmountable. Much of the trouble arises due to callous indifference of the academic world and utter negligence of the State to initiate the schemes as 'Big Push'. Thus, strong support of the academic world and introduction of a nationwide programme of off-campus education at secondary and higher levels would go a long way in directing the attention of the society to the new technology. With this programme in hand, the emphasis would shift from the desirability of new styles to the removal of obstacles and the system would start getting benefits of external economies. The new approach would not let schemes like Open University of India enjoy cold storage facilities for the full period of a five year plan. Let it be remembered that like the programmes of national economic development, one cannot enter into cold water of social reforms gradually. One has to take a big plunge like the 'Big Push' of investments. Such a big push needs a frantic effort on the part of the State and international consciousness to assist the developing regions by making social techniques available in adequate and timely doses.

REFERENCES

[1] The analysis is based on questionnaire answers from and interviews with nearly 100 students and faculty members as also on the personal experience of the author as Director of the Institute of Correspondence Studies, University of Rajasthan, Jaipur-India during 1968-1971.

[2] The Report of the Education Commission (1964-66) Government of India emphasized that correspondence education should not be confined merely in helping students to prepare for university degree, but be widely used for courses which will help the workers in industries, agriculture and other fields to improve production, but nothing has been done so far in this direction.

BIBLIOGRAPHY

Boulding, K.E.: Technology & Integrative Process, Today's Changing Society. Institute of Life Insurance, New York, 1967.

Government of India: Report of Education Commission, Ch. XVII.

Mishra, M.L.: New Education for Emerging Societies, Prasar, Vol. 2, April 1974.

Moore, M.G.: Learner Autonomy, IX. International Conference on Correspondence Education, Papers, Vol. II.

Ruddar Datt: Correspondence Courses, Some Impressions, Prasar, Vol. 2, April 1974.

Villaumme, J.C.: Correspondence Teaching for Underdeveloped Countries, International Handbook of Management, McGraw, 1965.

Experimental Activities with Distance Education at Swedish Universities

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The paper gives a brief account of an evaluation project of distance education at five Swedish universities. After describing the general outlines for the evaluation, the author presents the evaluation procedures and a few results. (The project will not be completed till June, 1976.)

The evaluation consists of analyses of student population, their use of and attitudes to aids designed to over-bridge distance, dropouts, study results, experiences of the teachers, and analysis of persons having asked for information of the programme without applying for distance study.

BACKGROUND

Distance education (project part II) is one of three experimental projects, proposed in 1969 by The 1968 Educational Commission, U 68, to H.M. the King. By the experiments new forms of distribution of higher education were to be tried in different respects, for instance its influence on the recruitment.

The distance education is turning to new groups of students, to people of mature age or to people who are tied to a specific place, or its vicinity, by their occupational activities of families. To those people it does not matter if the university is situated at a distance of 25 or 200 miles; it is too far away in any case.

Distance edecation is a kind of education in which the oral instruction is given very little scope. It is concentrated to some intensive periods spread over the whole term or the whole academic year. Between these periods the student works on his own at home and has the possibility to consult his teacher at the university by telephone or by letter. So this kind of education is a development of correspondence teaching.

The activities were started in the autumn term of 1973 with distance education in seven study courses. In the spring term of 1974 additionally 14 study courses were started, and in the academic year of 1974/75 there are 40 study courses at the universities of Uppsala, Lund, Gothenburg, Umeå, and Linköping.

Uppsala

Physics A 1
Business Economics A 1 (10 points)
Earth Science A 1
History A 1
Community Planning
Sociology A 1
Statistics A 1
German A 1

Lund

Public Administration A 1 (Växjö branch university)
Economics A 1
Pedagogics A 3 (8 points; two course units, one of which at the Växjö branch university)
Pedagogics A 5
Political Science A 1

Gothenburg

Labour Market and Personnel Administration A 1
Biology A 1 (10 points)
English A 1
English B 1
Introductory Course in Law (10 points)

Umeå

Public Administration A 1
General Linguistics A 2 (10 points)
Labour Market and Personnel Administration A 1
Economic History A 1
English A 1
English B 1
Physics A 1
History A 2
History of Ideas A 1
Computer Science A 5 (5 points)
Computer Science A 6 (5 points)
Art A 1
Marketing A 6
Mathematics A 1
Economics A 1
Pedagogics A 1
Statistics A 1
Swedish A 1 (modern structure)

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Linköping

English A 1
English B 1
Physics A 3
Mathematics A 1

The courses are planned for delayed studies, which means that 20 points are to be completed in two terms (instead of 20 points per term). The number of students is limited to 30 in each study course, and then to 60 students during the experimental period.

The aim of the evaluation

General outlines for the evaluation are given by the Office of the Chancellor of the Swedish Universities (UKÄ). According to these outlines the following questions, among others, should be answered:

I What methods should be used to give education to students who are not in the lecture room or even at the educational institution?

II Can we manage without any form o two-way contact? If the answer is no, how should this contact be arranged? Is informal telephone contact between the teacher and the student enough? Should any form of correspondence teaching be used? Are there further possibilities of compensation for the absence from the institution?

III How should periods of oral instruction at the institution be co-ordinated with the private studies at home? How to arrange the laboratory work which is necessary in some subjects?

IV What group of students should the education first be planned for?

V What region should the activities comprise?

VI Can such educational aids as are already available be used in distance education? Do they need to be completed, for instance by some form of study guidance, to make the material self instructional? Is new production of educational aids necessary?

The evaluation started in the autumn term of 1973, and in the academic year of 1973/74 it aimed to deal with the distance education at the Umeå University only. From the academic year of 1974/75 onwards the distance education is evaluated at the other universities, too.

Some parts which will be evaluated, and some results, are presented below. The project will be completed in June 1976, so there are only a few results available yet.

THE STUDENTS

Description of the population and student analysis

A questionnaire is given to each one of the distance students all over the country. Relevant variables and groups of variables in this connection are:

Social circumstances:
- personal status
- number of children
- (age)
- (sex)

Social background:
- parents' occupation
- parents' education
- husband's/wife's occupation
- husband's/wife's education

Educational background:
- education on the comprehensive school level (eqv.)
- education on the grammar school level (eqv.)
- higher education
- other kinds of education
- different courses etc.

Occupation and employment:
- present occupation
- earlier occupation (for one year or more)
- hours of work in present occupation
- attitude to present occupation

The distance education:
- attitude of the family to the present studies
- the employer's attitude to the present studies
- leave of absence from work (if any) for the present studies
- the form of the leave of absence from work
- number of study hours planned per week
- study techniques
- attitude to the studies
- self reliance
- reason for lack of self-reliance
- studies on a long view
- study alternatives
- study motives

Certain results are here brought out for students who began their studies in the autumn term of 1973 and the spring term of 1974. Most of the distance students are more than 24 years old, about 80 % of them are working, and most of them are working full time.

Twenty-five % of these students are planning for an academic degree. Most of them are financing their studies by their own income or their family's income.

The majority of those who are working are well or rather well satisfied with their present occupation. The students have been asked about the most important purpose of their studies. About 50 % of them have mentioned professional reasons, for instance the wish to advance within their present occupation, or to change into a new profession.

A very interesting result of the interviews is that a great number of these students would not have studied at a university if the distance education had not been available. So in many cases this kind of education seems to be the only possibility to get higher education for persons who are geographically tied.

The students' use of and attitudes to distance over-bridging aids

The following topics are of great interest:

1 The students' points of view on the meetings
2 The students' need of critical discussion and instruction
3 The students' attitudes to examination
4 The students' attitudes to educational aids
5 The social and psychological consequences of the distance education for the participants

Information about the students' use of and attitudes to distance over-bridging aids will be received in two ways. All students will be given a questionnaire to answer when they have finished their studies. To make it possible to construct this questionnaire distance students will be interviewed. These interviews will also be used to give better possibilities to interpret the results from the questionnaires.

A considerable part of the information about the studies, as well as a great part of the education given to the distance students is made via telephone contact between the teachers and the students. To make it possible to systematize this information, a telephone registration form has been made.

This way of documenting problems has been a great relief to the teachers in so far as it has been possible to get a view of the frequency of the problems, their structure, contents and locality, and out of these particulars find and discuss alternative models to solve the more serious and frequent problems.

For the more comprehensive evaluation there are also some interesting aspects in connection with the registrated problems and categories of problems. We think there are reasons to see if and how different subjects are connected with different problems, if the problems are different for different course units within the same subject, if the problems are changing with the time etc.

When the registered problems are more individually related they can answer questions about the individuals' special difficulties, point out the students who try to establish contact themselves with the institutes or the teachers, and the students who are getting contacted by the institutes, etc.

The Institute of Economic History at the Umea University used the telephone form mentioned above in the academic year of 1973/74. On reporting the trial one of the teachers says:

> "The telephone calls give very good possibilities to personal contact with the teacher. Obviously there is also a great need of contact, especially at the beginning of the studies, when many of the students are feeling uncertain.
>
> This early contact gives a remarkable social concentration, because of the students' uncertainty. This does not mean that this sort of contact should be un-desirable. On the contrary, it contributes – carefully handled – to mutual understanding and relatively good knowledge of the individual students' problems, which is very useful at the judgement of the individual work. As soon as after one month the teacher knew all 44 students, which would hardly be achieved by ordinary education during so short a time. The telephone is obviously an excellent aid, which can substitute a great deal of the direct contact".

A special study of the students' geographical spreading etc.

A special study of the geographic spreading effects of the distance education has been considered as desirable.

We wish to know something about the spreading of the distance students to different types of homeplaces, and are planning to study the following topics during April-May:

1 The students' place of living
2 The size of the homeplaces
3 The distribution of the students on different types of homeplaces
4 Distance between the university and the students' homeplaces
5 Distance between decentralized university education or extramural university education and the students' place of living
6 Distance between a place, where study circles or the like are run, and the students' place of living.

In a special study of the offer of university courses in the North region of Sweden, we have made clear that the spreading of the distance students is very great and that more than 90 % of these students had no possibility to pursue university studies at their home places. In addition it was obvious that this kind of education did not in any way compete with other university courses, for instance the universities, extramural courses, the systematized decentralized university education or the educational associations' university courses.

Analysis of drop-outs

Students who have ended their distance studies without completing them, will probably be interviewed by telephone, since we find it very important to map out this group.

Study results

The following questions have been regarded as interesting:

1 Do the results differ between different distance students when considering educational background, basic knowledge test, motivation, occupation etc?
2 Are there different examination results between the distance students and other grown-up students?
3 Are new forms of examination used in distance education, compared with traditional education?

The study results are taken from each institute after the courses are finished. To make a comparison with other delayed students (point 2) a comparison will be made with a planned investigation within the Office of the Chancellor of the Swedish Universities. Information about the forms of examination will be taken by interviewing teachers.

THE TEACHERS

The following topics will be clarified by interviewing the teachers at the institutes which are giving distance education. Interviews will be made on two occasions, at the start and after the course is finished.

1 The planning of the education and the examination
2 The contact between the teacher and the student in this kind of education compared with traditional university education
3 The attitude to aids bridging distance
4 How are the educational aids functioning, and must new educational aids be produced?
5 Changes in the teacher's working load compared with traditional education
6 Pedagogic effects on regular education

A general impression among the teachers who are teaching within the distance education is that this kind of education is laborious, but at the same time most stimulating; the students are very well motivated and give freshness to the discussions by their experience of work. The contact between teacher and student is very good, in spite of the distance, sometimes even better than the contacts in regular teaching.

ANALYSIS OF "QUESTIONING"

A questionnaire will be sent out to persons who have been interested in distance education at the beginning of the spring term of 1974, the autumn term of 1974, and the spring term of 1975, but who have not applied for distance studies. Here we are interested to know why persons who have got information about distance education have not applied, and what they thought of the information (printed matters and oral information from the university).

The analysis is made on the following variables:

1 Sex
2 Social background
3 Earlier education
4 Profession
5 Place of living
6 Occupation
7 Attitude to distance education
8 Attitude to information about distance education
9 Reason why they did not apply for distance education

A comparison between this group and the group which have begun distance studies will be made on the variables 1–8.

This presentation of the evaluation may give an unnecessarily disparate picture, therefore it must be pointed out at once that the different problem complexes will be related to each other. On the side of method/technique the relations are already obvious in as much as data which are illuminating different problems will be gathered by the same technique and in several cases at the same time.

The Educational System of the German Fernuniversität

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The paper describes the design of a recently founded German institute of distance education on university level, the Fernuniversität. The first students are going to be enrolled in October, 1975. The Fernuniversität will be competing with conventional universities for full time students, and will also develop a continuous education system for students with proper qualifications.

The system will rely heavily on correspondence material and personal communication supported by regional study centres, and will include the use of audio cassettes and an elaborate testing and guidance system.

1. STATUS

The German Fernuniversität ("University of Distance Education") was founded on December 1st, 74 by the state of Northrhein-Westphalia in Hagen. A planning committee of some 30 professors has been working since May 1974. A working group in the Ministry of Science and Research started working about half a year earlier. The university personnel is being hired presently. Some 160 staff members will be working in Hagen at the end of the year. It is planned to open the Fernuniversität with several hundred students in economy and mathematics in October 1975.

2. OVERALL GOALS

The Fernuniversität has two main goals:

(1) Setting up an economic approach to educating full time students, who are aiming at the Diplom (M.A. equivalent) and the Staatsexamen (state examination for high school teachers).

(2) Developing a continuous education system for those who have the proper qualifications to be registered at a university in the German system (Hochschulreife, Abitur).

Thus, the Fernuniversität is not an open university in the British sense. Instead, the Fernuniversität will be competing with conventional universities from the very beginning on.

3. A SURVEY OF THE EDUCATIONAL APPROACH

3.1 The media

The system will rely heavily on correspondence material. Course units contain elements with the following contents:

- motivation, entrance behaviour test
- information to be taught
- self tests
- differentiation within a band width via theoretical foundation and practical application, remedial programmes
- material supporting the tutorial component of the system
- computer and tutor marked tests.

Personal communication will be supported in study centers for about 20 per cent of the student's time. In the beginning part time personnel will carry this activity. A fraction of the personal communication, including two one-week courses at a regional study center, will be indispensable to the students.

Radio and TV are not constitutive components of the system. There are two reasons for this: (1) Production and delivery by the public broadcasting stations are almost impossible under the given German laws, (2) the efforts at production is thought to be uneconomic, if belanced against allocating funds to personal communication, audio cassettes sent to the students, and an elaborate testing and guidance system.

3.2 Timing of student activities

Each course will run for a year composed of 34 weeks correspondence education activity, 2 weeks attendance of courses at the study center, and 2 weeks remedial work before the next year. It is hoped to work under a mastery model, thus, students can path their timing individually. The operating system of the Fernuniversität will handle tests all 52 weeks of the year, allowing a dynamic rhythm of student activities.

4. A REMARK ON THE ECONOMY OF THE FERNUNIVERSITÄT

The Fernuniversität has been designed as an economic alternative to conventional German universities. This will work out only if at least some 1000 students of each age group are enrolled per discipline.

This, however, is only possible if enrolments of conventional universities are significantly decreased, with all its consequences. Or, if the fraction of the age group beginning an university education will increase, thus increasing the total costs of university education, which in Germany have to come totally from taxes. Both assumptions presently are weak.

Therefore it is believed that the activities of the Fernuniversitat in the future will concentrate more on continuous education at the university level. Here an attractive offer from the conventional universities is missing in Germany. The Fernuniversitat might also become an open university, enrolling everyone. This, however, might take some time.

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Part 4

Student Service, Student Activity and Two-Way Communication

Characteristics of Informative Publicity Material and the Pre-Enrolment Correspondence

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The nature of advertising is affected by the need to make the maximum economic use of an advertising budget. Effective advertising can only be undertaken if there exists a sound belief in the correspondence courses being offered, and the tutorial staff are in no small measure responsible for advertising successes.

The advertising of correspondence education is carried out with the purely limited objective of achieving enquiries. This is balanced by other publicity material, particularly the prospectus, which should give the fullest possible information, both about the correspondence institution and about the careers for which it is offering preparation.

It must never be forgotten that each student is an individual. A sympathy for this individual should reveal itself in publicity material both by the breadth of its information and an understanding of the natural aspirations of any student.

This depth of understanding is nowhere better revealed than in personalized correspondence and interviewing. Those responsible for preparing publicity material should also be in regular contact with the type of student for whom they are preparing the material.

One of the particularly good things, among many others, about the International Council on Correspondence Education is that it brings together many people in the field of correspondence education whose backgrounds vary tremendously and because the backgrounds vary tremendously, their concept of correspondence education may have equally large variations. Nevertheless, we have all come here with a common interest and in order to see more clearly that common interest in the topic before us it will be desirable to think briefly of our varying backgrounds.

Our countries range through all stages of development, so the level at which correspondence courses will be studied may vary tremendously: In some countries correspondence education will be closely associated with the state education authorities, in others entirely apart; in some countries correspondence education is fully recognized by the government authorities, while in others the authorities would like to pretend it does not exist. The range of courses we offer varies tremendously — leisure time pursuits, basic education requirements, technical skills, professional studies, university dregrees, etc. The agencies offering courses differ — there are universities; public and state agencies; public companies; private firms; and individuals. The ethical approach of ICCE members to correspondence education varies greatly: some will hold that all education must be offered on a non-profit making basis; others will argue that making a normal profit is no different from drawing a salary to make a living; and views on many matters in correspondence education will be affected by such attitudes.

With such a wide variety of backgrounds, there will be inevitably many views to be expressed on PUBLICITY MATERIAL AND PRE-ENROLMENT CORRESPONDENCE. Nevertheless, I believe that we can all agree that the fundamental characteristics of our topic are essentially common, no matter what our background, since we all aim to enrol and teach students. Indeed this must be our aim if we are to justify our existence and at the same time meet all the expenses of running a correspondence school.

If, in the course of looking at the characteristics of our topic, I use the words "marketing" and "selling", I know that some of my best friends in ICCE will throw up their hands in horror, but I cannot deal with this topic freely and honestly unless I am in a position to "call a spade a spade". My definition of these words is such that I doubt if any correspondence educator reading this paper will not have already participated at some time in the marketing and selling of correspondence courses. Let me at the same time assure you that I am not interested in any form of high pressure selling, which aims to get the signature of an unwilling prospect on an enrolment form at any cost.

Once you start informing — in any manner whatsoever — your intending student about your correspondence course, you are in effect marketing it. Suppose a long established university like Cambridge sends a prospectus to a school leaver; suppose it subsequently writes to that same school leaver in answer to some of his enquiries: why has it done this? Not, I am sure, because it has no wish to see the

student at the university – quite the contrary. In fact, it is engaging in selling its services to the would be undergraduate.

We in ICCE are also engaged in offering our services to students and the objective of this paper is to consider how we can do this both effectively and with dignity.

Before studying in detail the characteristics of our subject, we should think for a moment of the background in which we are working and then take a quick look at the range of our subject.

First let us consider the BACKGROUND under four different heads –

1. Common to all correspondence educators is the fact that we may never see our student or if we do it is only on rare occasions. We must, therefore, at all times and in all our publicity material, correspondence, tapes and television appearances, inspire his faith in our ability to enable him to achieve the objective of his intended studies. One way we can do this is by being positive about correspondence education. I for one could never talk to a student about 'distance education' in such a way as to convince him that I have something worthwhile to offer him. On the other hand, as I hope will be demonstrated throughout this paper, I believe that a student will be encouraged if he knows he is going to 'hold intercourse' (i.e. the dictionary definite of 'correspond') regularly with his tutor, no matter whether that correspondence takes place by letter, tape, or telephone. In any event distance is relative – the communication of a poor classroom teacher may create a sense of distance!

2. This paper is necessarily influenced by the situation in the United Kingdom, where I work, and I should like, therefore, to quote from a paper prepared by Ben Mendes of Metropolitan College last year for the Autumn Workshop of the European Home Study Council.

> "Correspondence education in the UK covers in the main adult education, a considerable part of it in the preparation of students for the professional and academic examinations. Over the last 100 years the professions in the UK have grown because of the social acceptance of part-time study through the correspondence method. Over 650,000 students a year study by correspondence, and represent a large proportion of the student population. Traditional UK educational philosophy has always ignored the benefits of teaching by correspondence. Correspondence education in UK has been supported by official and government bodies on an 'ad hoc' basis. The Department of Employment, the Foreign Office, the Ministry of Defence, the Police Force, the Home Office covering its scheme for prisoners, utilise the services of correspondence institutions. The main types of courses being studied by correspondence are General Certificate of Education, University of London External Degrees, Gateway courses for the Open University, and over 100 professional, commercial and technical institute's examination courses."

3. My own college, which also influences my paper, is well defined as coming within the sphere outlined in the foregoing paragraph, so I simply emphasize that almost 100% of our students enrol for courses leading to external, public and professional examinations with a view to improving their qualifications and enhancing their careers. Furthermore, our courses have the distinction of being entirely self-contained, something for which traditional educationists criticise us and students thank us!

4. I have already touched on our student whom we are unlikely to see, so let us think for a moment of what is likely to influence him to study our course. To me it is axiomatic that it would be a mistake to believe that students can be persuaded to enrol for courses they do not really intend to pursue. By the time the student is ready to embark on his correspondence course, numerous influences will have been at work directing him towards it. Such influences may be categorised – advice from a schools careers master; knowledge of others who have studied by correspondence; employment where the natural means of qualification is by postal study; the state of being housebound; reading articles or publicity about correspondence education over a period; a desire to pursue studies privately for reasons of confidentiality; a belief in one's ability to progress at a fast pace; or freedom to work at one's own pace.

With this background in mind, let us secondly consider the range of material which we have to handle in order to market our courses for the benefit of students. I give first of all a summary of the main points –

1. The initial means by which the student's attention is attracted. Advertisements are an obvious means, but we can add to these posters, notices and direct mailing. Perhaps surprisingly I add also our own study courses for a very important reason.

2. Then we must tell our student ALL about it and this we do by means of prospectuses, pamphlets and leaflets and various types of letters.

3. Part of publicity material in many correspondence schools is the reminder, taking the form of the common follow-up letter and also of the mailing leaflet.

4. Finally, as is indicated in the second half of our subject title, we have the question of personalized correspondence, to which, although neither publicity material nor correspondence, I would like to add telephone advice and interviewing for a rather important reason which I shall later explain.

CHARACTERISTICS OF ADVERTISING

Put yourself in the position of a correspondence educator who has prepared a good course, which you know is needed and which you

know is needed and which you wish to make available to students who can benefit from it. At the outset you face the immediate problem of how to reach the, as yet, unknown students who will be able to take advantage of your course. Advertising rates in the mass media are exceedingly expensive and rash expenditure of money will soon lead to a depletion of resources and few, if any, students. We have to remember that in reaching those wishing to further their studies, our target is a relatively limited proportion of the population. Therefore, mass advertising, in which over 90% of the reading public will be disinterested, is most likely to be wasteful.

What means can you, therefore, choose to make known your excellent correspondence course? Let us examine a few possibilities –

1. Fortunately it is common for newspapers to group advertisements of a particular character together and, therefore, those classified columns with headings such as – Educational – Courses – Tuition – etc. – are ideal for making known the correspondence course. It is, however, still necessary to 'watch the budget'. Taking substantial space in such columns is a good income for the newspaper and an enhancement of the column for all advertisers in it, be they small or large. A regularity of appearance is probably of greater importance than size in this type of advertising.

2. If you are keen to embark on some general display advertising in the mass media, then you will have to have courses that are generally very popular – eg. those for general education – and a carefully controlled campaign will be essential. The time of appearance, the position in the paper, and a certain repetitiveness are very important.

3. A much more useful type of display advertising is that in specialized journals to which the correspondence course is directly related. For example if your course is going to train an accountant, then journals read by accountants are an obvious choice and normally a medium in which one can afford substantial space such as a whole page.

4. Direct mail has an important place in the marketing of correspondence courses. What could be more natural than to make by post the initial contact with a student who is going to study through the post? Unless you are in a position, however, to obtain specialized mailing lists, direct mail to individuals chosen from a directory at random is more than likely to be disastrous. On the other hand, it is generally fairly easy to obtain mailing lists of organizations and specialize the mailing copy to the organization in question. To take once again the example in accountancy, if you have the name of all the firms of accountants up and down the country, you can easily direct your mailing piece to "the Trainee Accountant".

5. Finally, your best method of advertising is one which is controlled not by your advertising manager, but by your tutorial staff. I refer, or course, to our satisfied student. He is the natural person to be in contact with others wishing to study the same or similar subjects as himself. The correspondence school that fails to devote an adequate part of its budget to its tutorial side does so at its peril. While satisfied students will frequently go out of their way to recommend their friends to take the correspondence course from which they have benefited, it is a good plan to assist them from time to time by providing them with a form on which to send in names and addresses of their friends. Indeed, this is probably the most economical form of advertising for enquiring students.

So much for the various types of advertising. Let us consider now what each advertisement is going to do. One thing it is not going to do is to sell the student a correspondence course. In fact, all advertisements have only one essential objective – to stimulate a worthwhile enquiry to the correspondence school about its courses. Any copy writer for a correspondence school must remember that he is bound by this one limited objective. The selling will be done later by the prospectus, which we shall be considering shortly. Let us consider now the essential attributes of an advertisement.

In fact, there are only three essential attributes –

1. The course that is offered.
2. An exhortation to get information about it.
3. Where to get the information, i.e. the name and address of the correspondence school.

Of course, there are many peripheral attributes to an advertisement and these will vary with the type and size of the advertisement. We can sum them up in two main groups –

1. The advertisement should catch the eye. This may be no more than a single word in a classified advertisement. A favourite eye-catcher in the UK are the three letters "GCE" standing for General Certificate of Education. More students study for this certificate by correspondence than for any other qualifications – hence its importance as an eye-catcher. In the larger display advertisements there are opportunities for the pictorial eye-catcher and, of course, imaginative advertising people, such as you who read this paper, will not lack for ideas in the development of such material.

2. Image building is the other important attribute of any advertisement. This is important because it sometimes takes the reading of several successive advertisements before a student will take the trouble to enquire about a course. Therefore, without his actually realizing it there is subtly building up in his own mind an image of this or that correspondence school. Important factors in image building are – the presentation of a school's name – successes achieved by its students – study methods – cost of its courses – whether it enjoys some form of accreditation – the personal interest it may take in its students. All these matters may be brought out in an advertisement, depending on its size, to a lesser or greater degree.

To assist them in 'image building' some correspondence schools publish their own magazine. I regularly enjoy receiving one such from the American School and also from Hermods of Sweden. I can understand the former, but the exotic Swedish language of the latter is

beyond me! It is, therefore, all the more interesting to read what Carl-Olof Gänge has to say about Hermods' magazine "Korrespondens" –

> "This has certainly had an immense significance in the formation of our image. There are three main reasons for this:
>
> 1. It was the mouthpiece of the principal. Always up to date, it mirrored developments and was always painstakingly edited.
>
> 2. It was always linked with other means of creating contacts. At the beginning of term, for example, the theme was always 'New Year, new start', often followed up with the same appeal in advertisements. A technique which was repeated year after year.
>
> 3. It has been published continuously right from the start. It has, of course, changed a great deal over the years, sometimes very much Hermods-orientated, sometimes providing more general motivation to study. During the difficult period in the twenties, for example, the main concern was to instil the spirit of advancement among the readership, the same applied during the war years in the 40's. Many of the articles from this period on the future need for education and training were undoubtedly of great assistance to many Hermods students during these difficult years."

Before leaving this important topic of advertising I would like to quote from two of those who spoke at EHSC's Autumn Workshop last year – first Carl-Olof Gange said –

> "Now, in a review of the Hermods course on advertising techniques in 1938, somebody wrote: 'Hermods is a text-book example of the firm whose entire existence relies upon the fact of being known, better known, well known and even more well known. For this, two essential conditions must be present to a sufficient degree: good products and good advertising. Hermods has both.'"

Secondly, Dr. Heinz Schwalbe of Institut Mossinger said –

> "Therefore the first thing you have to remember when you are planning a public relations campaign is, that you represent an institute that is honest, progressive and has nothing to hide. Only when you believe this and can keep it always in your mind, can you ask yourself: 'How can the people be shown that the function of a good institute is to serve them, not to take advantage of them, and what can our institute do – not selfishly but with the public interest in view – to bring about favourable public attitudes towards the necessary role of correspondence education in our society?'"

For me these two paragraphs show that the advertising managers had implicit belief in their respective organizations, because the courses were both good and beneficial to students. When, as we have mentioned, students recommend their friends to enrol with their correspondence school, they are demonstrating their confidence in the school. I believe that an advertising manager must have equal confidence in the courses he is marketing – something which places a heavy but worthwhile burden on the tutorial staff.

CHARACTERISTICS OF PROSPECTUSES

We have now reached the stage where our advertising has carried out for us the relatively simple task of obtaining enquiries for our correspondence courses. Our prospectus now has the much more difficult task of changing the enquiry into an enrolment – but not just any enrolment. It must be an enrolment for a course that is right for the individual student, for this then makes the whole operation of the correspondence school one that is worth-while and one that is likely to be economical. If we may think financially for a moment, the enrolment that is wrong for the student is likely to lead to bad debts and this does not make the operation of a correspondence school economic.

Our prospectus, therefore, has a very major task to carry out. It must deal with many matters and will inevitably be in the nature of a substantial book. It is vital also that it is presented with clarity, so that the student can quickly grasp the information he requires.

A prospectus will carry out its task essentially by giving information and this information can be grouped under two main heading – 1. Image building, a 2. Facts about the course. This is an oversimplification and there are many matters to be dealt with under each of these headings and some of them will overlap. Moreover the prospectus must stimulate the act of enrolment. In listing the various matters below I shall concentrate on those which have most relevance to image-building first and to facts about the course second. In all our consideration of these characteristics let us bear in mind that our student is about to embark on a course of studies which will demand sustained study on his part and, we all hope, a worth-while change in the direction of his future career. Before embarking on his course of study, therefore, it is only natural that he should expect the fullest possible background information. Let us look now at the areas that this information will cover –

1. He will be interested in knowing something about the history and origins of his correspondence school. The details may be brief only or they can be somewhat expanded, but at a minimum it is worth telling him how long the school has been established, who founded it and what is its 'raison d'être'.

2. There are always people behind any correspondence school and some information on those actively responsible for providing his correspondence course should be given – names and qualifications of the Principal and the tutorial and administrative staff working under him. While you are about it, it is a good idea to liven up the prospectus with a few pictures of personalities and possibly of the building from which the correspondence school operates.

3. In these days of consumer protection a student will be keen to know whether his correspondence school has undergone any form of inspection or accreditation or whether it is a member of an association of correspondence colleges to which it has responsibility for maintaining standards.

4. The methods of tuition adopted should be fully set out in the prospectus. This may not be particularly important for the student who is used to the idea of following a postal study course, but our prospectus should be designed at all times for the uninitiated. Thus, on this matter of methods of tuition, there are several matters over which the prospectus must range –

a. The adequacy of the qualifications of the tutor or tutors who have prepared the course.

b. When he can start the course – of course, with most correspondence schools this is any time, but it is as well to make this abundantly clear.

c. Whether the course comes to him in a few large batches or many small ones.

d. How his timetable is planned to take him through from the time of enrolment to his examination or to completion of his course.

e. The actual presentation of the study material – whether he is required to read widely in text-books or whether the course, as with many modern correspondence courses, is self-contained. The extent of support material in the form of tapes, discs or visual aids.

f. The extent of syllabus coverage. It is to be assumed that the course will be relevant to the syllabus, but some reassurance on this is doubtless important to the student.

g. The extent of the written work that he will be expected to undertake and allied closely to this the contact that he will have with his tutors.

h. What he can expect in the way of pre-examination assistance – nowadays when examinations can be affected almost daily by legislation and changing economic conditions, this can be a very important item.

5. The prospectus should inspire confidence. It goes without saying that the correspondence school must have a solid base on which to inspire such confidence. Some of the ways of doing this may be briefly listed –

a. Nothing is so convincing as the achievements of other students who have gone before. Therefore, information about examination successes and especially leading places taken in important examinations in recent years should be included.

b. In similar vein the testimonials of former students should be included. A correspondence school whose students regularly achieve successes normally has a substantial supply of such unsolicited testimonials.

c. Although not essential it is worth considering offering students prizes for notable successes, since this engenders an atmosphere of confidence.

d. Another method of inspiring confidence is to offer a guarantee – not, I know, favoured by all – but it is something which a correspondence school by virtue of the economics of its operation can offer.

This matter of inspiring confidence is not just a question of encouraging the student's enrolment, but it is important to create and maintain this attitude in the student from the outset if he is to be successful in his correspondence course. Tutorial staff, please note you must take over where the prospectus leaves off!

6. Most of the foregoing information to go in the prospectus is of a general nature and likely to be common to all courses, but a prospectus will deal with many courses and the following is intended to be in essence a check list of the information which should be given in respect of individual courses –

a. He should be told something about the opportunities that may result from undertaking a particular course of studies, although care must be taken that such opportunities should not be oversold. The best way to do this is probably to state the objectives behind the examination and give some information about the examining body, particularly if it is a professional institute.

b. Early on state the entry requirements to the course or examination. Obviously we can only enrol a student if he is qualified to proceed to a particular course, but, even if he is not qualified, we may well be able to help him achieve his aim by satisfying the entry requirements. In the UK, for example, we would offer him tuition for appropriate subjects of the General Certificate of Education, which would enable him to satisfy the entry requirements.

c. The curriculum or the scheme of the examinations to be pursued should be clearly set out. This need not necessarily be a full syllabus, since this will probably be printed elsewhere by the examining authority, but should at least state the names of all the subjects which will have to be studied and passed.

d. Every course will have its special regulations on matters such as exemptions, transitions from old to new syllabuses, requirements of passing certain parts of the examination before proceeding to the next part, etc. These should be carefully summarized.

e. Information should be given about the normal length of time taken to complete a course and, connected with this, advice on the periods over which to plan studies and the dates on which examinations can be taken.

7. It would be wrong to expect that any prospectus could answer all the questions and queries in the mind of students planning their courses. It is, therefore, highly desirable that the correspondence school should offer an advisory service and state prominently in its prospectus that this is available, and at the same time state whether it is available by letter, telephone, personal visit or all three.

8. Then we must quote a student a fee for his course. I would put in a plea for such fees being clear and fully inclusive. I have never understood why some schools – and I am thinking not so much of correspondence schools – have to charge a registration fee, tuition fee and then add all sorts of other extras afterwards. One thing we can do in correspondence schools is to do our costing accurately

and to charge one simple single fee at the outset. If there are to be extras, e.g. text-books, then the cost thereof should be clearly stated.

9. Finally, we come to the contract – commonly known as the enrolment form. The conditions of this should be clearly and concisely set out – this goes hand in hand with the previous point on simplicity on quoting fees. At the same time the form should be simple and easy to complete, and provide all the essential information required from the student.

In making a final comment on the prospectus, I would like to reiterate that the presentation of all the information referred to above should be such that it engenders the confidence of the student and encourages him to enrol for a correspondence course that is going to be worth-while to his future.

CHARACTERISTICS OF THE REMINDER

We have sent our student a prospectus and given him all the information he wants. Why, it may be asked, should we send him a reminder? Firstly, we are dealing with a fallible human being like ourselves and it is quite likely he put the prospectus on one side and has not given it due attention. He will appreciate a reminder. Secondly, if we are dedicated to educating people by correspondence, we know that we have something worth-while to offer the student. It is thus only natural that we should show concern that the student should take advantage of the course.

I would split reminders into two main categories. Those that follow up within a few weeks the sending out of the prospectus and those that are sent after a somewhat more substantial interval of several months or even a year or two.

Much the same comments will apply to both categories, but the former will be perhaps more simple and more directly related to the prospectus sent recently. In all probability they will reiterate points already made in the prospectus. In such reminders, which one would normally expect to be in the form of letters, points most likely to be covered are –

1. Encouragement to read the prospectus throughly.
2. A suggestion for those who may be uncertain, that they should take advantage of the advisory service by writing to the correspondence school.
3. An emphasis on the merits of the particular correspondence course being offered.
4. The importance of studying by correspondence to acquire knowledge and qualifications which will lead to a successful career.
5. An injunction to stimulate action by the student to enrol is clearly desirable.

The reminders sent at greater intervals would presumably be carefully timed for those periods of the year when students are most given to thinking about planning future studies, e.g. after the main annual holidays and at the beginning of each new year.

Again a letter could be used, but if there are many thousands to be followed up at the same time this can create problems of personalizing the letter adequately and, therefore, I prefer on the whole the printed mailing leaflet. Such a leaflet should be succinct and contain only the following essentials –

1. Something – probably pictorial – which is going to catch the eye and create interest in the leaflet.
2. Having caught the interest of the student, then it is desirable to stimulate his thinking towards success by means of a correspondence course.
3. At this point the leaflet should list the courses that are available – this is important since it is more than likely that the student will not have immediately to hand the prospectus sent to him many months ago.
4. The current fees must be quoted.
5. And obviously an enrolment form should be included, together with an envelope for returning it.

In deciding to send out such reminders it is important to remember that when a student originally enrolled, he may have done so not with the immediate intention of enrolling, but in order to have information about your particular corresponcence course in anticipation of an enrolment at a later date. If he confides in you to the extent of advising you of his future plans, you can make a diary note to follow up at the appropriate date, but most enquirers do not favour us with such information, so a reminder from time to time will certainly be appropriate.

CHARACTERISTICS OF PERSONALIZED CORRESPONDENCE

In this concluding section of my paper I consider that I cannot do better than quote in full a talk given by my colleague, Miss Mary Woodyard, at the EHSC Workshop last October.

Her definition of personalized correspondence is that

> "with individuals who have already had informative and excellent publicity material, but who, in spite of being highly motivated, still need 'something else' before they can come to a decision about their studies.
>
> "This 'something else' can be defined as one or all of three things: firstly, a need for personal contact with an individual rather than an institution; secondly, a need for specific information of a specialized kind which is not covered in the publicity material or for professional help and guidance and reassurance in some form or another.
>
> "The majority of enquiries for further information and profes-

sional guidance in planning studies come from young people in the sixteen to twenty-five group. You will find that, as a rule, they did not enjoy studying at school and left as soon as they were able so they could take a job for the sake of earning money. Later on, when they have satisfied their need for independence and have had some experience of working life they come to realize the importance of qualifications, if not the intrinsic value of education, which is now self-determined rather than legally imposed, very seriously.

"By the time they get to this stage these young people, like others who are qualified in one profession and then realize they have made a wrong choice, usually have very well-defined objectives. They may know exactly what they want the end result of their studies to be but their lack of experience or lack of familiarity with educational systems may prevent them from knowing how to go about achieving that end result. A young woman may wish to become eventually a teacher, for example, but is not sure what educational standards she must reach before she can be accepted for training; an ambitious office junior may decide he would like to do more than make tea but does not know which business subjects he should study to gain promotion.

"Frequently the kind of information asked for is to be found in general careers books or official documents. It is because they are not used to sifting complex information that these young people approach the Home Study College for a clear answer to their particular problem. Sometimes it is also because they find the language of official publications and examination syllabuses rather obscure and are anxious to have confirmation that they have interpreted them correctly.

"For these reasons it is vital that the information which has been asked for is presented in a very clear, simple and straightforward manner. To avoid any possible misapprehension I feel it is a good policy always to state the problem to be dealt with at the beginning of any reply to a pre-enrolment enquiry, since it is not uncommon to find that people believe they have written on one particular problem when they, in fact, have written about something quite different.

"Where there is a lot of complex information to be presented, it is important that it is broken down into easily assimilable sections, and, preferably, that it is given in a logical order. The young woman I mentioned earlier for example may have to proceed through several stages in her education before she is ready to train as a teacher – and it is preferable that these stages should be outlined in the same order as they will occur in her long-term study plan. Generally speaking, it is necessary to go into detail concerning the first stage only since details concerning the other stages can be given by the student counsellor when the right time comes.

"It is important that where a piece of specific information has been asked for it should be given, even though it may be a difficult question requiring some research. If only general information is given and the question avoided, the prospective student may well lose faith in the Home Study College as an authoritative guide or, alternatively, feel there are insurmountable difficulties about which no-one wants to tell him.

"To avoid any confusion or distraction on the part of the person presenting the problem, it is advisable in most cases to give only the information asked for. I personally feel that large insertions of publicity material are out of place in a letter of this kind, and in any case are unnecessary since the person who takes the trouble to establish personal contact in this way has already been sold the idea of home study and is more than half-way to becoming a student. However, I do feel that a short 'selling' paragraph with an injunction to the prospective student to take action on his study plan is an effective way to end the letter on a positive business-like note.

"This is not to say that no general information should be included. It may be advisable, for instance, if one senses that the enquirer is a little uncertain and puzzled about Home Study methods, to include some brief explanation of the way he will be studying. It is also important not to omit any business details, the absence of which might delay him from getting started on his studies. It is as well to repeat the cost of the course, to remind of the method of enrolment, for example, even if the information has already been given in publicity and information material. This kind of information takes only a brief space but can save the prospective student a lot of time re-reading material already sent and encourages early enrolment.

"Having spoken about the presentation of information, with particular reference to young prospective students, I would now, finally, like to say something about the tone and style of pre-enrolment correspondence and the special approach needed for the more mature age groups.

"Although, as I have said earlier, it is important to reply in a clear logical manner, that is not to say that the tone of the letter should not be friendly. Ideally, it should be such that the writer feels he is in contact with someone who is prepared to consider his problem objectively as a professional supervisor but at the same time sympathetically as a fellow human being who knows what it is like to be in his situation.

"This feeling of understanding and sympathy is extremely important to the more mature person who is contemplating a return to study in middle-age after a long absence from academic work. He may know what he wants and probably how to go about getting it, but is more often than not held back by a lack of confidence – he suspects he is no longer capable of the goal he has set himself.

"It may be that it is 20, 30, 40 years or more since he left school and he may feel he is now 'too old to learn'. There is often an implicit assumption that learning is something that only young people do; there is even sometimes a sense of guilt at wanting to learn 'at their age'. The reason for this irrational feeling is, I suspect, probably the result of being brought up in an age when further education was the prerogative of the middle rich, who passed the time learning whilst 'ordinary' people got down to the sensible

business of earning a living. There is frequently an underlying sense of inferiority. This is particularly true of the middle-aged married woman who has been so used to thinking of herself as a 'mere mother' that when her children have grown up and she has time for study, she has difficulty in persuading herself that she still has an intellectual as well as a practical capacity.

"With many of the enquiries from the mature person, one gets the feeling that the writer is half hoping you will write back and say 'Yes, I am afraid you are too old. You should give up such foolish ideas at your age'. This would then let them out of what they foresee as the formidable difficulty of entering a sphere in which young people excel.

"Because of the underlying doubt and uncertainty it is necessary to respond in a very positive way. Whilst the difficulties of beginning study at their time of life cannot and should not be dismissed or made light of, they should equally be shown not to be insurmountable.

"To be a little more specific; the person who feels he or she is 'too old' to begin study will often be greatly reassured to hear that there are already many students of his/her age and in the same situation who are successfully undertaking courses of study of all kinds and obtaining results comparable to those of younger students; the person who bemoans the fact that his 'memory isn't as good as it used to be' could benefit from being reminded that he has a definite advantage over the young learner in that he brings a wealth of experience to bear on his studies.

"In a similar way one can usefully employ this positive kind of approach with prospective students whose aims are unrealistically high. If, as occasionally happens, a prospective student solemnly declares that he would eventually like to become a Prime Minister, it is deflating an admirable, if oversized, ambition to get on in life to tell him, however polite the terms, not to be so ridiculous and that his is an impossible ambition. Instead one can point out to him that the first requirement of being a successful Prime Minister is to be able to use words to his own ends – and suggest he starts his career with the study of the English Language. He may never become Prime Minister but even if all he does is to improve his ability to express himself then the effort of using the positive approach is worthwhile.

"Finally, with pre-enrolment correspondence it is absolutely essential to be quite definite about your subject – any recommendations or advice must be given authoritatively and with total confidence. You can be sure that if there is any doubt or uncertainty in the mind of the person writing the letter it will, in some way, be communicated to the prospective student. This can then delay him starting on his studies since he may feel the need to write again for further reassurance, or worse still, can perplex the borderline case so that he feels unable to cope and abandons his original study plans.

"The only way to be this definite and confident is, of course, to be one hundred per cent certain of your facts. Inaccurate information not only causes loss of faith and inconvenience to the prospective student but may literally ruin his career. A prospective student who wishes to study a particular subject at university for example must receive totally accurate information regarding the subjects he must study. If he is not given the right information he could study for several years and then find at the end of it that he was still not qualified to study his chosen degree subject.

"In pre-enrolment correspondence therefore, as in no other form of publicity material, there is a very great moral responsibility – particularly towards the individual. By your efforts you can make or mar his life, and it is for this reason that the requirements of pre-enrolment correspondence are so very special."

Now I would like to conclude my paper by explaining why I wish to include reference in it to telephone advice and interviewing. We must not ignore that in correspondence education we are dealing with students en masse – indeed, this is our privilege – but at the same time everyone taking a correspondence course is an individual. I consider it of the utmost importance, therefore, that those responsible for publicity material and pre-enrolment correspondence must know and have a proper sympathy with the student studying at home. The ideal way to ensure that this sympathy exists is that such members of staff should be the same advisory staff who are regularly giving advice over the telephone and by personal interview.

I need not outline the procedures for giving advice by telephone and at interviews. Suffice it to say that many of the principles already dealt with in this paper will be equally applicable. The important point is that the advisory staff will, from their contacts, develop an intimate knowledge of the type of student with whom they are regularly dealing and in subtle ways this understanding of the student so gained will be transmitted in the publicity material and the pre-enrolment correspondence.

The Distance Tutor in Correspondence Education

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This paper presents a study of correspondence teachers in Britain, based on 569 completed forms from teachers working for seven correspondence institutions.

The overwhelming majority were part-time tutors. Statistics are given concerning age and sex, teaching and other experience, and leading motivations for tutoring. The enquiry also was engaged with three aspects which are summarized in the last section of the paper. These are first the training facilities which are available to help tutors, secondly the form and extent of their work, and thirdly the attitudes of tutors to their own responsibilities.

INTRODUCTION

There have been a number of studies into the identity and circumstances of the correspondence student. As far as I am aware there have been none into the identity and conditions of the correspondence teacher. In fact, although there has been a considerable volume of local and more generalised research in the USA into correspondence study, the total of correspondence educational research here in Britain, and possibly in the rest of Europe, in spite of a century of practical experience, is still relatively small. This which I am presenting here is only an initial and brief account of an enquiry which I started some two or three years ago as another modest attempt to begin the filling-in of an important gap in our knowledge of the relevant facts. Any such research must inevitably be to a large extent a confirmation or a limited modification of existing and subjective impressions and views held by many who have been professionally engaged in this educational work for very many years. Professionals, however, are inhibited in their knowledge of their own active specialism by the heavy demands of the activity itself and of their own professional status. It is sometimes easier to look at a situation from the outside. Any research into this, or indeed any other professional field, must be a co-operative effort. The researcher in this type of enquiry only collects, compares, classifies and also attempts his own interpretations, explanations and, possibly, suggestions as to future enquiry and action. The professional contributes his firsthand experience.

THE SCOPE OF THE STUDY

This is a study of correspondence teachers in a particular country, Britain, and within this particular social and economic environment. We here often use the term "tutor" for the correspondence teacher, because of the similarity of the individual relationship through correspondence to that of the academic tutor meeting privately his pupil and engaging him in instructive dialogue. It is a worthy ideal, although it is one to which, in most cases, it is only possible for the distance tutor to approximate. The alternative term "marker", used in some countries and institutions, only illustrates the more forcefully how far it is possible to move away from such an ideal. In Britain we also use the term "tutor" in certain traditional areas of academic and liberal education for adults. Here again the emphasis is strongly on group discussion. I should confess that my own path of interest into correspondence education is through a lifelong involvement in adult education and also an interest in distance education and in self-learning in all countries. How far a study of tutors in British correspondence study is relevant at least in part to other countries I can only speculate, and with only limited personal experience outside this country. I would guess that many of the attitudes, circumstances and characteristics of correspondence teachers here can be found in most other countries, whatever their social development, even if the mixture varies in its proportions of the same ingredients.

First, I must make clear my own use here of the term "distance tutor" (or distance teacher). In correspondence education, as in all teaching at a distance, the teaching is the joint product of a team of educationalists. In such team-teaching the course writer, the course editor, the student advisor or counsellor, the compositor, the illustrator and the course tutor may all be regarded equally as teachers – they are the equivalent, in their combined and different ways, of the individual classroom teacher. In this paper I am singling out for the enquiry the course tutor, the man or woman who is the main point of personal learning-contact between the subject matter and the correspondence student. Not all areas of correspondence study or all such systems use a personal tutor. Not all correspondence education systems, moreover, see the function of the tutor in the same light. Not all tutors will regard the scope of their obligations in the same way, as the enquiry itself has illustrated. For some tutors, indeed, even the course itself might seem to be merely a convenient

aid to their own instruction of the learner, and there can be a very personal bond between tutor and correspondence student.

In Britain the overwhelming majority of distance tutors (in the sense above) are part-time and likely to be engaged full-time on quite different activities. The overwhelming majority of correspondence learners are working adults and are outside the formal educational system. The great majority of correspondence institutions are both non-governmental and are not in receipt of any public grant or aid. The reasons for this are outside the scope of this paper. The situation does of course raise very understandable problems in the way of any enquiry designed to find out more about distance tutors through the individual tutors themselves. For educational institutions obliged to support themselves through their own income, and their own activities, staff time is precious and is limited, and part-time staff are an important part of their stock in trade. Any research in this field is entirely dependent on the goodwill and co-operation of the colleges or institutes, often at some sacrifice of their own interests. Professional workers do not always welcome investigations into their own circumstances, however well safeguarded their responses might be.

All enquiries in the tutor questionnaire were sent through the employing institutions, but returned, preferrably anonymously, to the university. There was also a questionnaire sent to selected colleges, tutors' manuals contributed by a few institutions, and a limited body of personal correspondence and comment sent by the tutors particularly interested in the enquiry. Reference was made also to the available (and limited) literature on the subject. In all, some seven correspondence institutions, or half of those invited to do so, felt able to co-operate fully in this part of our total correspondence research. Just over one thousand tutor-questionnaires were sent out for dispatch by the colleges, and it is reasonable to assume that not all of these were able to be used (as the numbers in each case were agreed in round numbers, to the nearest 10 or 20). The response of 569 completed forms, or 54%, might possibly be more accurately regarded as approximately 60%.

These 569 tutors worked for a fairly representative cross-section, as far as we might estimate, of colleges. They were engaged mainly in preparation for degrees and for what we can define as "higher level" scholastic and professional public examinations. Three of the colleges were larger institutions, with tutor panels each of from 180 to over 400 part-time tutors, two were of medium size with panels of 50 to 100, and two were smaller professional institutions with less than 40 tutors. The actual courses which were tutored ranged from degree courses (mainly B.A.) and the Advanced level of the General Certificate of Education, to secretarial, banking, accountancy, law, transport and insurance. There were also a variety of "other" courses recorded as being tutored by those who completed the forms. These latter courses, which included a variety of preparation for occupations such as transport, police and nursing work, and also the G.C.E. (Ordinary level) perhaps cannot strictly be described as higher level. They were included because at least a fifth of the tutors were engaged in courses at more than one level or in more than one area of study.

All were engaged in preparing working adults for examination, although several mentioned that they were employed by two or more colleges, including the Open University (which was not amongst the seven colleges approached). The seven colleges were established variously in university cities in both northern and southern Britain with the majority in London. As correspondence institutions are not confined to recruiting their part-time staff only in their immediate neighbourhood, these 569 staff were variously domiciled in almost every part of the country, the English Midlands, the North, the Southern Counties, and the Home Counties (i.e. adjacent to London), Wales and Scotland. This could at least be deduced from the postal franking of envelopes as the tutors' addresses were not requested and so provided no guide to the enquiry.

RESULTS

Almost all who responded to the enquiry (99%) described themselves as part-time tuturs. This is probably in sharp contrast to the proportion of part-time correspondence tutoring in some other countries where the sponsorship of such educational work is more integrated into the government provision. Much of the tutoring in institutions elsewhere in the world appears to be the responsibility of full-time staff. Of these, however, only 92% limit their part-time work exclusively to tutoring, and nearly 7% also write courses and contribute to the editing of courses. There is a wide variety in the number of distinct courses for which a tutor will teach, although over half (55%) take one course only.

Over a fifth of all tutors take two courses, a tenth take three courses, and 13% take four or more courses. The implications of this are more apparent later. Quite a number of tutors (though I have no statistics on this) appear to be employed by more than one college, judging from comments by a few who added to information on the forms. Certainly the 569 tutors between them covered 763 major "course areas", such as law, School Certificate (Advanced), degree study, or banking, quite apart from our taking into consideration any different courses or subjects within a wider "course area".

Age, sex and experience

Who, then, are these part-time tutors? The enquiry indicated that three-quarters (73%) were men and one-quarter (23%) were women. Contrary to my own previous expectation that this work was largely in the hands of housewives and retired people, only 12% of the total described themselves as engaged primarily in management of house and family, and only one tenth were retired people. The major proportion of part-time tutors (35%) were teachers of classes in subjects relating to their correspondence course, while another 7% taught classes in quite other than their course subjects. This may have contributed to what appeared in some tutors to be a confusion in their own minds as to any difference between the functions of the face-to-face classroom teacher and those of the postal tutor. But this is

anticipating the finding of another part of the enquiry. As many as 28% were tutoring without any previous experience of teaching, but with considerable contemporary experience in the relevant profession. These included lawyers, accountants and many others of similar status, and it explains some of the leading motivations behind tutoring work as outlined below. Two other more limited categories of tutors are those involved in educational administration (3%) but not in teaching, and those working in other work quite unrelated to course subjects or to education (4%).

In addition to the professional class teachers mentioned above, a total of 42%, it can be noted that of the 130 housewives and retired people acting as tutors, the great majority (89%), had had previous experience of class teaching. Overlapping with this 89% were 14% who had taught by private coaching (more closely related to correspondence tutoring), 4% who had instructed (in-training) in office or in workshop, and 6% who had been involved in educational writing. These housewives and retired people are evidently an invaluable reservoir of possible and suitable tutors.

Correspondence tutoring is evidently not in this country normally regarded as work for young post-graduates or young professional workers seeking to augment their incomes, although there are exceptions. Only 15% of the sample were aged under 30 years, and a third of these were young women. At the other end of the scale rather more (16%) were aged 60 and over, and only one-sixth of these were women. Of this oldest age-group, over 60% were retired and using the tutoring presumably both to provide interest in retirement and additional income. By far the largest proportion, nearly half, were aged 31 to 45, and approximately a quarter were 46 to 60, people with mature experience of life. Men and women were fairly evenly distributed as between these four age groups, except that well over half the women tutors were in the 31 to 45 age group. These were mainly the housewives with (one could guess) families having reached school age and away from home by day. Over half of the tutors who are under 30 years are also teachers of classes.

Motivations for tutoring

There are a large variety of motivations which have led people to take up correspondence tutoring, and frequently more than one motivation was stressed by individuals. Not unnaturally one of the motivations was the wish to earn extra income. This was not mentioned as frequently as one might have expected. The statistics relating to motivation were based on an attempted identification of the one dominant motive in each case, with priority being given to the wish to earn, where another motive also was mentioned. Even with this (perhaps cynical) bias, only 16% stressed the wish to earn, but perhaps this is a reflection of the fact that no part-time teaching is lavishly paid. This seems inevitable both with commercially financed and publicly grant-aided correspondence institutes or colleges, unless the public subsidy is far more substantial than is normally the case in Britain. It would have been unethical under the circumstances to have enquired as to the payments made by private firms to their employees. Payment for part-time teaching, whether in local authority evening classes or university tutoring, has in this country been primarily a supplement to other income earned elsewhere for other duties. It is never subject in the normal way to the pressures of the employment market. The contract between college and individual tutor is a relatively informal one, dependent on the varying needs and resources of the college and the free choice of the individual. Most of the dominant motivations of part-time tutors anywhere are not economic. He (or she) works in his own time and convenience, and preferably at his (or her) own home without travel or cumbersome overheads in expenses.

In almost all cases the payments to tutors may be on a per student basis, but normally on a fee per script, or essay, submitted to the tutor. This has obvious educational disadvantages, related to length of student script or written assignment and length of tutor written comment. Yet there appear to be few practical alternative bases of payment. The actual levels of payment to tutor will vary from 7 pence or 15 pence per script to 30 pence or 32.5 pence depending on the subject, the academic level and, of course, on the college. The tutor may sometimes grumble that this is "much work for little pay" or may be "thankful for small mercies".

If it could be deduced that the motives for tutoring are not primarily financial, then the statistics regarding tutor motivation take on a sharper significance – perhaps not least for the colleges involved. The largest proportion of tutors, nearly one-third, declared that they were particularly interested by correspondence education as a form of teaching. Some of these were not professional teachers and perhaps there is a wouldbe pedagogue buried within many non-teachers. Others were intrigued by the method. The next largest proportion (18%) declared that they had been unable to teach in any way other than by correspondence. These were often trained teachers who were now prevented from normal classroom teaching by ill health or other physical impediment or some other major obstacle such as family duties. Another and a similarly large proportion (16%) had stressed their economic motives, but a tenth had emphasised their wish to help their profession to recruit competent members or to help disadvantaged individuals in their education and training. Some of these were former correspondence students themselves. Over a tenth had been specifically invited by their professional association or by colleges to take up correspondence tutoring – to remedy in part the lack of suitable tutors in a subject, perhaps, in which the academics had little relevant expertise. Finally, apart from 2% who declined to answer this question, there were 13% who put forward a wide variety of individual or highly personal reasons for taking up such tutoring. Two of such reasons (each expressed by five or six tutors) were the wish to pass on to others their "very specialized knowledge" and their desire to "keep up with my subject". A total of over thirty other such individual motivations can be quoted from this section alone. It is clear that in this area of British correspondence education the motives for engaging in tutoring work are rather more complex and more various than even the educationalist might have assumed.

Qualifications

As the part-time tutors are composed of such a wide variety of individuals with a variety also in their motives and circumstances, there has not surprisingly been scepticism as to their qualifications for teaching for which none seem to have received any relevant formal training. Just under 96% of the tutors responding to the survey held degrees or other qualifications relevant to their tutoring subject. A somewhat small proportion (18%) were qualified by degrees or similar qualifications not related to their subject but testifying to advanced general education. On a cross tabulation of those who did not hold a relevant qualification, three-fifths had nevertheless a higher qualification of the latter type. The special strength of this part-time tutoring force was that over half (56%) of all tutors had relevant experience in their professions (in law, in the university, or for instance, in branches of commerce) to strengthen their purely theoretical knowledge. This was true of over two thirds of those without relevant professional qualifications, and, well over half of those with such qualifications. This left only 8 out of 569, or 1.4%, who claimed neither.

The remainder of the enquiry was engaged primarily with three aspects which can here be summarized only in brief outline. These are first the training facilities which are available to help tutors, secondly the form and extent of their work, and thirdly the attitudes of tutors to their own responsibilities. These are of course closely related, particularly the two latter areas, and may well be contrasted and compared with practice in other countries.

Training facilities

There are few general training facilities available for new correspondence tutors either in this country or in most other countries. It is in fact difficult to see who would, under the existing conditions, arrange such formal training unless correspondence study were to be a part of the general public educational provision. It is also not easy to forecast who would be the clients of such courses if such courses were arranged, as the individual economic gain to be made by the teacher from perfecting such tutoring skills is so uncertain and marginal. This may well be regretted by many who use and have faith in correspondence study, but in practice many of the tutors themselves (one-fifth of the tutors responding) do not even believe that this form of teaching demands any special skills distinct from the skills of classroom teaching. Most of the remaining four-fifths of tutors had preferences for different forms of initial training for new tutors, and of in-training for themselves as experienced tutors in need of improvement in their own tutoring work.

Two points might be made here. First, that the individual tutor normally accepted the suggestion (in the questionnaire) that there might be a distinction between their own needs for themselves as established tutors and the needs (on the other hand) of the inexperienced tutor, whether or not they had received normal teacher-training. Secondly, that correspondence tutoring is a particularly isolated activity, where the tutor is left alone with his problems and his uncertainties.

Not all tutors were in favour of "tutors' instruction manuals" (or perhaps had even been provided with these by their colleges). It is true that many well prepared manuals are as much concerned with administrative instructions as with teaching hints. Only a quarter of the tutors vauled these as contributing to their own training, although many more (still only 39%) felt they were valuable as initial training. The tutors' training course was one of the most favoured forms of training for new tutors, over one-third considering this suitable, with one-third favouring likewise the training given through possible interviews with experienced tutors. Only 19% and 12% (respectively) felt that these would meet their own personal needs as more experienced tutors. By far the most popular suggestion, accepted by half the tutors (48%) was that in-training would be provided by tutors' meetings. Some tutors expressed a strong, almost desperate, wish to talk over their teaching problems with others in similar occupation. A few (only 6%) suggested other forms of tutor training such as working through a course as a correspondence student or special meetings with examiners. One of the more sceptical tutors demanded dramatically "can you teach (others) sympathy, tolerance and humanity?".

Form and extent of work

The form and extent of correspondence tutorial work is illustrated by a number of relevant statistics in addition to those already quoted above, stressing the number of courses covered by each tutor. The number of students "taught" by a tutor varied from tutor to tutor, and possibly from college to college and from subject to subject. Only one-seventh of the 569 tutors had between one and five students, and another one-seventh had six to ten students to oversee. As many as 22% had eleven to twenty students, and the same large proportion of tutors have as many as forty students and many more, up to a total of two hundred students per tutor. How much "individual" teaching by correspondence, in any subject, is possible under the latter circumstances must be a problem to estimate. Some tutors met this by using model answers prepared either by the college (54% of tutors) or by themselves (12%). This still left a third who used no model answers.

Some of the difficulty was met by a lack of written submissions on many weeks by many students. Yet a third of the tutors had written to five students (or fewer) in the previous two weeks, and (at the further extreme) a tenth of the tutors in the same period had written to thirty, forty or even more of their own students.

The burden of the work can be measured partly by the "average" length of tutors' written comments – difficult as it was for many tutors to estimate such an average. While 31% of tutors wrote on average as little as five to ten words per student, many tutors (42%) wrote as much as twenty to fifty words, and another 37% wrote much over fifty words per student. With such conscientious attention

given by some tutors to their correspondence teaching it is impressive (and perhaps surprising) that two thirds of the tutors received personal information about their students, and almost the same proportion felt it was their responsibility to contact students who were behind-hand in submitting their assignments and exercises by post. Over a third met at least some of their students in person and took a personal interest in their progress and in their problems. This is a striking feature of much correspondence tutoring, and is a tribute to much devoted and unrewarded teaching.

Attitudes to the teacher role

The attitudes of tutors to their own role as teachers is a wide subject which can only be touched on here. The enquiry took the form of a series of leading statements about tutoring, and a multiple choice check on tutor response. Of the eleven selected statements on role, four received agreement from over 90% of the tutors. These comments included such as "the tutor should give special attention to commendation and encouragement" and "the tutor's main task is to interpret the course". To other comments there was a more divided response, such as the 60% (only) agreement to the suggestion that "the tutor should give special attention to those academically weak". There was strong rejection of the suggestion that "the tutor's main task is to make good students better rather than spend much time on weak students", three quarters being in disagreement and only 12% in agreement.

Much more can be written and discussed on the definition of the exact role of the tutor in correspondence education. The above is a profile of the tutor in more advanced correspondence teaching. He (or she) is the voice and the personality of the correspondence method. It is primarily on the tutor that the method ultimately depends for its efficiency and its humanity – two elements which are sometimes (and wrongly) seen as being in opposition. The multi-choice questionnaire might be objected to as a blunt and imprecise tool with which to probe such a sophisticated area as educational method.

Fortunately the correspondence tutor, like all teachers, is particularly articulate on paper. The questionnaire enquiry yielded much more than mere answers by limited multiple choice.

Educational Significance and Characteristics of Student Activities in Distance Education

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Both classroom teaching and distance education are to some extent governed by the same principles of teaching and learning. The paper discusses those principles, especially as they relate to the basic features of distance education

The paper stresses that teaching must aim at encouraging and directing the activity of the students. It deals with the necessity of activities, the forms of student activities, and the means of evoking activity.

WHAT IS DISTANCE EDUCATION?

The expression »distance education» has been introduced on the educational scene to denote what has been popularly referred to as correspondence education for a long time. This expression is more accurate than earlier expressions such as private study, home study, correspondence instruction and the like, because in each of these there is a certain degree of inadequacy as regards the principles and practices involved in this type of education. Private study, for example, emphasizes the fact that the kind of study being pursued is private. Whether the educational material used is self-teaching, and whether or not there is a two-way communication between the student and the teacher, is of little relevance. The flaw in such a definition must be obvious since any form of education, be it classroom instruction or correspondence instruction, involves a certain amount of private study. The same problem is encountered with regard to home study, because the student does not have to study at home. The essence of correspondence education from the point of view of the learner is that he studies in a place and at a time determined by his individual circumstances. Correspondence instruction as an expression denotes that teaching and learning take place from well-constructed lessons which are presented in written form, the only difference between this and oral instruction being the absence of a face-to-face method.

On the other hand, distance education denotes that the learner is removed from the physical presence of a teacher, whether or not he studies in private or as a member of a group. The two-way communication between student and teacher need not be in writing. Be this as it may, the important thing to bear in mind is that distance education and classroom face-to-face teaching are but two ways of doing one and the same thing, that is, the dissemination of knowledge and skills to people wherever they may be, regardless of their ages and their individual circumstances. The existence of an organized two-way communication over a distance is the chief characteristic of correspondence or distance education.

BASIC FEATURES OF DISTANCE EDUCATION

The Student who studies by this form of education must bear in mind that distance education is often a lonely and difficult task. It demands patience, perseverance and concentration, often in very difficult circumstances. This is so because the majority of students who study by this method, at least in many developing countries, do so because they have no other alternative. Some of the basic features essential to distance education are as follows:

a) Distance education implies that two or more parties are in contact with one another through some kind of remote control system.

b) A close one-to-one relationship with the student in the form of help, guidance and even individual coaching, is an essential feature of distance education.

c) The existence of an organized two-way communication over a distance is the main characteristic of distance education.

d) Distance education is not primarily face-to-face teaching. How the two-way communication takes place, whether by written word, by mail, by telephone, by radio, by tape recorder or other means, is irrelevant.

e) Distance education must embrace the communicational aspect (the type of course and how it is distributed), the human or social aspect (the student, his problems, and ways of learning), and the pedagogical aspect (the teaching methods and techniques).

f) Distance education calls for a high degree of self-discipline, and maximum activity on the part of the student if he is to succeed in his efforts.

Distance education can be used with almost any age group, subjected of course to the type of work to be taught and the kind of assistance available to the student wherever and whenever he chooses to study. Contrary to popular opinion, conventional classroom teaching is not always the best method of teaching. In fact a great many subjects, such as reading, writing and arithmetic, require individual learning

which can often best be done by students working alone. In any case reading itself is a solitary activity and so is writing, and these can best be done by students working alone.

Normal distance education is a method systematized by means of specially produced material, so that it is made available to many students at a time and for periods of varying length. Thus the system is characterized by the student receiving instructions or studying, materials and assignments. Then he carries out these assignments and returns them to the teacher for correction and comments, which subsequently are returned to the student. The rate at which the assignments are done, hence the degree of activity, will vary from student to student. It would depend on a number of factors not the least of which is the teacher himself, the nature of the course, and the consequential assignments. In order to teach effectively it is necessary to have well-prepared instructional materials, sufficiently motivated students, and properly trained teachers who will use the instructional materials purposefully.

For the instructional materials to be useful they must be able to achieve the purpose for which they are prepared. They must help students to acquire new useful knowledge and skills that will bring about a change in behaviour. Knowledge must be purposeful if it is to mean anything to the possessor. The instructional materials must be based on the job to be done and the behaviour to be learned. The producer of materials for teaching should therefore be resourceful and not simply reproduce the content of older text-books if the students are to be engaged in any meaningful activity.

Having imparted knowledge and skills to the students, a good teacher will determine the extent to which such knowledge and skills have been absorbed by the students. This is why revision of the materials and tests within the course are necessary. Tests and other assignments are necessary learning experiences. They are intended to induce activity and give practice which leads to learning. Any teaching materials and any tests that do not satisfy or achieve the aim for which they were prepared, should be scrapped if teaching and learning are not to be impeded.

MAIN PRINCIPLES OF EDUCATION

From the foregoing it must be clear that both classroom teaching and distance education are to some extent governed by the same principles of teaching and learning. What are these principles and how do they apply? The following are the main principles which govern distance education no less than classroom teaching:

(a) Learning by doing.

This is often referred to as the Principle of Activity, which is the core of this paper. Under this principle all forms of teaching must aim at encouraging and directing the activity of pupils. In class this activity takes the form of asking and answering questions and doing exercises. In distance education this must inevitably involve the writing of all assignments, both self-marking and tests. It must be realized that the student learns only as long as he is actively engaged in solving problems and sees the need for continuing his studies.

(b) In teaching, use must be made of previous knowledge.

This is referred to as the Principle of Experience. It must be remembered that children are interested in things they know or have heard about, and this is why we must proceed from the known to the unknown in any teaching situation. In class as well as distance education this calls for revision of ground covered in previous lessons.

(c) Interest is essential to effective teaching and learning.

It is natural for people to learn easily the things they like or the things for which they see the need. In distance education, interest need not be a problem at least in developing countries, because the students who enrol are, and should already be, sufficiently motivated. They know why they enrol and are, therefore, eager to succeed. In class, on the other hand, interest is not always easy to maintain, and unless the teacher varies his methods of teaching frequently his students may easily lose interest. Therefore, every effort must be made to create a need among the students if they are to take their learning seriously.

(d) The exact aim of what is being taught must be known.

One has to make clear what one wants to achieve in a lesson. Unless the teacher and the students know where they are going, the whole lesson could as well be a complete waste of time and any activity undertaken absolutely meaningless.

(e) Having fixed the aim in respect of the lesson, one must select suitable material for carrying out the aim.

The material chosen should be suitable for the aim and for the students. One must pick out useful and important points suitable in amount for the lesson. This is important because in most distance education systems it is impossible to cover everything. It is, therefore, necessary that whatever is taught it must be taught thoroughly in simple clear language which will enable the students to show in their assignments that they have understood the gist of the lesson.

(f) Revision and practice throughout the lesson are necessary.

In terms of a classroom lesson this is done by oral questions here and there and by written examples and practical exercises. In distance education revision should take the form of a brief reference to previous relevant material and how it links up with the new material, explanation and examples of new material to be learnt, and exercises on the material just learnt in the lecture.

The foregoing shows that teachers engaged in distance education should be conversant with the general laws of learning, because the principles of distance teaching, like the principles of any other mode of teaching, are rooted in the general laws of learning. The teachers must constantly bear in mind that learning is more effective when students want to learn, when it is made more meaningful by a recall of relevant past experience, and when the learning activity is appropriate to the level of development of the learner. Distance education teachers must, therefore, motivate their students and design courses and exercises adapted to the level of the student. The student must feel that his course suits his needs and must find the subject matter valuable, because only in this way will the students' interest be maintained and the degree and rate of their activity enhanced. I would, however, like to add that the mere application to distance education of the rules set up in general education may prove ineffective because the long-distance contact involves its own laws.

WHY ARE STUDENTS' ACTIVITIES IN DISTANCE EDUCATION NECESSARY?

The famous Latin maxim, "Precepta pauca, exercitatio multa", as a principle of education is as true today as it was when it was first propounded. The fewer the precepts and the more the exercises the better. No one can learn by mere listening to or looking at principles. One must actually attempt to do something if one is to learn to do it at all. No one can claim any competence in driving a motor car by simply reading a book on learning How to Drive. If he is to drive a car at all, he must learn by actually driving one. Learning is by doing and not by mere looking. This is why questions, exercises and tests are all important learning experiences. Exercises are even more important in distance education where the means of communication, at least in many developing countries, is through the written word, the correspondence lecture. Oral questions are impossible in this situation because of the absence of any response and feedback. Written questions can be used, but because of the physical distance between the teacher and the student there is no immediate feedback and this has an adverse effect on the interest of the student. A "question-and-answer" session is almost non-existent in what I would like to call the conventional type of distance education known as correspondence study.

While on this subject of the need for activity in distance teaching I must caution that activity is a magic word, it is by no means a panacea. Activity for its own sake is just as bad as too much activity or too little activity. In each case, it is purely an academic exercise without any learning experiences at all. Such a situation leads a student to dislike activity. Furthermore, for activity to be useful and to be appreciated by the student it must be meaningful, that is, the student must see the need for it. Student activities are necessary because they help the student to learn, and to test himself what and how much he has learnt.

FORMS OF STUDENT ACTIVITIES

Because of the special conditions of distance education not every form of activity that takes place in classroom teaching finds a ready place in distance education. The lack of personal face-to-face contact between student and teacher is one such condition that distinguishes distance education from classroom teaching. The "question-and-answer" technique which is used frequently in a face to face situation, has serious handicaps in distance teaching as I have already stated. This narrows the scope of student activities in disready stated. This narrows the scope of student activities in destance education to exercises, tests, making items based on instructions either in the lecture or from a radio broadcast.

Of these activities, exercises and tests play a very important part. As Graff points out in his article on 'Exercises and Tests', considering correspondence education as an educational system in which written messages pass between students and instructor, we have to bear in mind two essential points, namely: that correspondence education approximates closely to self-teaching where the student's share of activity is high and the instructor's share is low, and that correspondence education is directed or controlled self-teaching. He goes on to add that any good tuition tends to make the student capable of effective self-teaching and, therefore, this essential point should be borne in mind while considering the exercises and tests in correspondence education.

In distance education, no less than in classroom teaching, exercises are the most effective stimuli for the conversion of passive reception into active learning.

An instructor should throughout the lecture use such motivating devices as putting questions or placing problems at the beginning of each course, at the beginning or a lesson or just before the exercise itself. It need not be emphasized too strongly that good exercises must be not just media for reinforcing the things learned; they must be aids to the self-development of the individual in a broader sense. They must help the individual to acquire the faculty of learning in a changing world. Tests are used to give the student and the instructor evidence of the students' level of performance, and should initiate both communication and didactic correspondence. In distance education tests must also check the effectiveness of the lesson itself and the degree of preparedness for a final examination.

HOW SHOULD STUDENT ACTIVITIES BE ENCOURAGED IN DISTANCE EDUCATION?

When arranging questions, exercises, or tests for distance education courses, one faces a far more difficult problem than in an oral situation, because there is no immediate feedback between the teacher and the student within a series of lessons. The questions and answers are independent of each other. The long lapse between question and

reply, assignment and correction, and lack of quick interaction, are in fact the greatest limitation in student activity in distance education. By employing all modern methods of the psychology of learning to guide the students carefully and to evolve their latent potentialities, and by careful correction, comment and evaluation of the students' assignments, activity can be enhanced. It is not enough for the teacher to recognize that a student has made a mistake or has not understood or mastered the lesson; it is his principal duty to find out the reasons. Therefore, the correction of initial lessons plays an important if not a decisive role as the teacher can ascertain from them whether the student's personal capacities are adequate to satisfy the standard of the course he is following.

In order to evoke activity from the student, and hence achieve the objectives of distance education, the teacher must ask himself the following questions: Do I have the knowledge of the subject to the extent that it more than meets the students' requirements? Has the subject matter which I shall give to the students a chance of ever becoming functional and life-enriching in the pupils? This is necessary because one can imagine a correspondence course, no more than half a page in length, with nothing but a list of titles of books to be read for examination.

In order to activate motives of learning among students, it is very important to influence the attitude of students to the learning process, and this is why the receipt of good marks has such a positive effect upon students. However, it must be pointed out that sometimes even negative effects can evoke a real desire to learn. One of the strongest motivational forces that a teacher in distance education should take advantage of is the desire and need by man for recognition. By correcting and commenting students work realistically and meaningfully the teacher can transform the initial readiness to learn into a delight to learn.

On the other hand, the teacher must avoid trying to evoke delight in learning in the student by unrealistically inciting the anticipation of success. If the student experiences a failure instead of the promised or anticipated success this will create a temporary distaste for learning. As the student's self-esteem deteriorates, his attitude towards the learning process, and hence the degree of his activity will be adversely affected. Therefore, in order to obtain lasting results, direct motivation is better than indirect motivation.

To conclude, I would like to stress the fact that activity depends on the teacher and his mode of evaluation or what he expects his pupils to achieve, on the nature of the lesson, on the student himself in terms of what he can or cannot do, and on such factors as home environment and the degree of fluency in the medium of instruction.

Be this as it may, the important thing is that, given a reasonably favourable atmosphere, one can learn what he has to learn in keeping with the limits of intellectual abilities. The fact does remain that whether it is distance education or not, the written work, exercise or test is the conditio sine qua non of achievement control. These prove whether or not the student has really acquired the material taught and has absorbed and understood it to the extent that he can reproduce it independently in his own words and according to the simplest possible method of solution. After all, the goals of education are no less than the ability to think logically; to express an idea properly and concisely; to perceive the essentials of an object and to distinguish between values. The student needs the teacher's guidance and help to perceive his mistakes and to learn how to avoid them. If a distance education course does not bring this about that course is a failure.

The Effects of Management and Distribution Set-up on Student Activity – and Vice Versa

Dr. J. Gordon Wynne

The University of the South Pacific, Suva, Fiji Islands

The University of the South Pacific in Fijis is a small university, and faces special problems of communication with students. The paper discusses the management and distribution set-up in the light of this situation.

Decisions on academic year, how many (and which) courses a student may take in a year, and how often materials, should be distributed and assignments returned, have been taken by the university. These decisions obviously have effects on student activity. As more student feedback is being accumulated, modifications are being made.

This is basically a practical description of the pattern of external studies which are mounted by the University of the South Pacific. This university has its campus at Suva in Fiji and serves ten island territories. As such it is a case study, and a small one as the university is small, having only 980 full time internal students and just over 300 external students taking credit courses.

Before considering the effects of management and distribution set-up on student activity the situation in which external studies is mounted needs to be viewed.

The situation in which external studies are mounted

The generalization which can be made about the situation is that it is varied. The population of the university area is around 1 million people, scattered in fairly small islands from the Equator to around 20°S, and from 155°E. to 160°W. of Greenwich; an area about the size of the United States of America. The university region comprises a group of islands in the Pacific whose official language is English, but whose first language is not (with few exceptions). Island groups served by the university are Fiji (the university campus is in Suva, the capital of the archipeligo), Tonga, the Gilbert & Ellice Islands, the British Solomon Islands Protectorate, (each of these have a university centre with a lecturer-in-charge), the Cook Islands (where a university centre is opening), Nauru, New Hebrides, Niue, Tokelau Islands, and W. Samoa. It is impossible to make valid generalizations about the region, except in the broadest of terms. The university serves Micronesians, Polynesians, Melanesians; it serves independent island nations, colonies, protectorates, and a condominium, as well as islands which have internal self-government. There are many languages throughout the region, some related, some not.

In the Solomon Islands the language of communication is 'pidgin' (a form of English) because the first language is different in different islands. Some island groups have a strong single culture, others have a number. In Fiji for example around 50% of the population are of Indian descent and live side by side in the larger islands with the Fijians. None of the islands in the South Pacific are large by world standards, nor are the populations. Fiji has a population of over 500,000 in an archipeligo of over 300 islands (about 100 are regularly occupied) and two in particular hold the main concentrations of population. Nauru and Niue are single islands with a population of a few thousand. Many islands are relatively poor in cash, though there is a high level of subsistence; one, Nauru, is relatively rich because of its phosphate.

Communications are variable between island groupings, and between islands in the same group. The main island in Fiji, Viti Levu, has an international airport at Nadi with regular international flights to New Zealand, Australia and UK via the East, and USA (and UK via the West). There are fairly good air communications with other island capitals. However, many islands are isolated within the Fiji archipeligo, and while a letter from Suva to London can be delivered in 3 days (around 12,000 miles), letters to an island a hundred or so miles away may takes 3 weeks or more. The same would be true in other island groups.

The generalization which does hold true is that there is a lot of sea in the area, and not much land: and distances between island groups can be large (often over 1,000 miles) and travel often expensive (especially by air).

The kinds of external studies offered by the university

Tertiary education in this setting will always be costly for the numbers of students will always be small, and the distances students have to travel to the university campus are great. Distance education in this setting is obvious but encounters practical difficulties. Communications in the area are very variable. Remote islands have no planes and rely on infrequent boats. This means that the actual sending of correspondence materials can be difficult. Media in the region is not highly developed. No one radio network reaches the whole region; only American Samoa has TV. Telephone links are extremely variable and often non-existent. A unique complicating factor is the Inter-

national Dateline which runs through the region, so that half the area is in today while the rest is in yesterday.

The university decided that its first external credit course would be a course in adult education and of a particular kind – a teacher training programme to train secondary school teachers. This course is a sub-degree Diploma in Education open to teachers who have usually been teaching three years. These teachers may be teaching in secondary schools without teacher training, or in the higher classes of primary schools (where class 7 & 8 are the equivalent of form 1 & 2 in secondary school) with primary teacher training. Students normally take ten units externally (usually two units per year). This comprises five level one courses and five level two courses. This is the equivalent of two years of full time study in the university. External courses are specially written by staff, often by those who teach the course internally. The courses are divided into two components; the materials produced and assembled for despatch to the student (called the correspondence materials') and 'face to face' contact with students. Because of isolated island situations many students cannot have any 'face to face' contact until they spend a final nine months in the university to gain the Diploma, and so the 'correspondence materials' have to be self-sufficient.

The 'face to face' element is achieved by tutorial visits to islands wherever possible. Grants for tutor travel have been given by the Commonwealth Secretariat. The second kind of 'face to face' situations have been through satellite link stations in the university region.

Effects of management and distribution set-up on student activity

Having reviewed both the situation in which external study is offered and the kind of study offered, it is now possible to look at the effects of management and distribution set-up on student activity.

'Management' in our distance education programme is the Extension Services of the University of the South Pacific, which has a committee. This committee is a Committee of the University Senate. Extension Services is a kind of servicing agency. The academic content of courses is determined by the various schools (faculties) of the university. Academic staff write courses, prepare materials, suggest books for study, mark assignments sent in by students, and set exams. The publishing, printing and despatching aspects are handled by Extension Services.

The decision of how many students could be handled per tutor was also an academic decision, but things like the dates of the external academic year and when materials are sent out, has been the responsibility of Extension Services. Many aspects of management had financial implications. This is especially true of staff recruitment and preparation of materials. As a result of these things a complex pattern of the effects of management and distribution set-up emerges. Students have rarely been formally consulted in advance on any of these matters. The original pattern was that management (e.g. the university) decided after consulting regional governments to offer the Diploma in Education externally as the first programme in distance education. The moving force behind this was the first Head of the School of Education, Professor R. Honeybone. At this stage Extension Services was part of the School of Education. Thus the first part of the programme to be offered were courses the School of Education could mount. These courses were in education, English, and mathematics. The social science courses have followed in the last three years, but the question of the costs involved have delayed the start of the science programme externally.

'Management' decided that the external academic year should be the same as the internal academic year (i.e January to November), and that work should be sent out to students four times during this period. (These were called 'mailings' and sent out every eight weeks.) The academic year has now been changed and the pattern of sending out material four times a year is at present under review. These managerial decisions have been taken without formal reference to students, but have been aimed at helping students and departments of education. December was often a difficult month to be attempting administrative work like sending out exam results or fitting students into courses, because schools were on holiday and many teachers had only school addresses for post to reach them. If teachers were transferred it often took weeks for post to catch up with them, and this was at a time when answers were needed fairly quickly. December was a bad month for departments or education who were dealing with ongoing or new scholarships and found it difficult to deal with external students who might be having courses paid for. Students also found that they had no academic study at a time when they had more time to study (i.e during the school holidays). Thus the academic year was changed in 1974 from a January to November academic year, to an August to May of the following year, academic year. This allows tutors to travel to see and work with students in the University long vacation, or hold short courses for students, as optimal extras, when they have no internal commitments.

The 'Management' also has two further areas which effect student activity. The first is how many courses a student may take in a year, and which courses. Normally a student takes two courses a year, which means a minimum of five years of external study. Internally these courses take two years. Students are allowed to state preferences for courses but the university often tries to group students in an area into the same courses to allow tutor travel to such a group. Thus in Tonga in 1974–75 courses offered to students were in education (level 1 and level 2), English (level 1 and level 2), Mathematics (level 1 and level 2). With such concentrations three university lecturers went across to Tonga on a Monday through Saturday to hold introductory sessions to the courses, and this provided additional motivation and stimulation to students. This kind of management activity allows less student flexibility but allows for more tutorial help and advice. At the present time in the university region this help is needed by most students, and though learner autonomy is a goal to be aimed at, it has been found in practice that most students for at least the

first two years of external study need all the supportive services they can get.

Where students are located is important. If they have relatively good communications with the university by post, phone, plane, satellite, or university centre, then they are more likely to complete a course successfully. This has led the university to be much more flexible over receiving assignments from students in remote areas. This is more easily accomplished in certain subjects than in others. In education students have self-evaluation tests and have a written assignment every two weeks, but they only have to send the workbook in at end of eight weeks. Thus if they fall behind on an assignment they have time to catch up. In mathematics and English assignments are required to be sent in every two weeks for marking because of the nature of the material. It can be difficult for a student to catch up if he falls behind.

Thus 'management' has determined which courses would be mounted externally, how many students could be accommodated, the content and method of study, how students communicate with the university, and the academic standard to be reached to satisfactorily 'pass' a course.

The effects of student activity on management and distribution set-up

Initially the university offered these external courses to cater for felt needs in the region, but no research in depth had been possible. Thus the initial courses were put out almost into a void. It was known that all students would have a certain maturity and had been teaching for at least three years, and either had reached School Certificate level if already teaching in a secondary school, or had reached School Certificate level if teaching in a primary school without teacher training, and if a qualified primary teacher had one or two years in a primary teachers' college. Internal courses had been running in the university for two years, and as the external course had to have some parity then guidelines existed.

In these circumstances the university offered external courses having taken into consideration the university region. If it was a paternalistic approach then it was a pleasant kind of paternalism and one which has been modified over the years to answer felt needs of students.

Thus changes have been made in the light of student needs to the actual academic year, to a review of when and how often to send out materials, as well as revision of actual courses and materials (not part of the scope of this paper). Although changes in the academic year were made without a referendum among students, a recent survey I conducted among students suggested that the new academic year is welcomed by most. Most students prefer their materials in four mailings but ask the university to allow more time for work reaching them.

As regards sending assignments into the university, students feel that a particular course may vary from another and are prepared to let course tutors make decisions about whether assignments should be returned every two weeks, or four weeks, etc.

An other question asked of students in the recent survey was about examinations. Until recently an examination had to be held in every course and had to count for between 40% and 60% of the overall total. Now with special permission from Senate this can be altered and no examination need to be held. Of the replies so far sent in to the university a number of students want things to remain as they are while others want the exam to count for less, but only one student wants the examination abolished.

Students have made some interesting comments on the distribution of their materials. One student outside Fiji suggested that where there was a university centre all materials for students in that area be sent to the centre. When a student finished his first mailing he took or sent it into the centre and then received the next mailing. Another student in Fiji suggested the local education department act as a distributor in the same way.

Now that the programme is in its fifth session more student feedback is being accumulated and in the light of this, modifications are being made in certain areas of management and distribution set-up as outlined earlier and hopefully more of this will take place to produce the flexibility needed to cater for students in different situations.

Conclusions

As the programme continues and more students are enrolled, as tutors travel around the region, or students write in, as surveys are sent out for students' opinions, all these things are modifying and changing patterns of management and distribution set-up. This is a healthy sign. Any programme that becomes resistant to change and settles into a rut is hardly likely to meet the needs of those it is intended to help in a region where change is taking place.

Individually Guided Motivation

Some Applications to Distance Education

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During the last few years, educators have become increasingly aware of the need of individualizing instruction.

This paper deals with some principles regarding the motivation of individual students. The principles have been developed at the Wisconsin Research and Development Center for Cognitive Learning, within an instructional program, called Individually Guided Motivation (IGM).

The paper indicates briefly how these principles are applied in the IGM system, and suggests some ways in which they might be effectively implemented in correspondence or other forms of distance education.

Over the past few years, educators at all levels have become increasingly aware that individuals differ widely in intellectual abilities, skills and conceptual learning styles. Accompanying this growing awareness has come a heightened conviction on the part of educators at the elementary and secondary school levels that instructional programs should accommodate individual differences among learners and thus meet the needs of all students.

A strong and focused research and development effort in the area of individualized instruction has been ongoing over the past decade at several institutions in the USA and has resulted in much new knowledge concerning individual differences and the interaction of such learner variables with instructional variables. Based on this new knowledge, individualized instructional systems have been developed and are undergoing evaluation. Some innovative instructional programs which have received national attention and dissemination are Individually Prescribed Instruction (IPI), developed at the Pittsburg Center for Learning Research and Development, and Individually Guided Motivation (IGM), developed at the Wisconsin Research and Development Center for Cognitive Learning. Many schools across the country have adopted these individualized systems or have utilized the knowledge generated by these and other R and D efforts to develop their own approaches to individualized instruction. It would be fair to say that over the past decade most of the changes in elementary and secondary, and, to some extent, in higher education in the US have resulted from the movement to individualize instruction.

However, it would also be fair to indicate that the researchers, curriculum developers, and school administrators and teachers involved in this movement have focused largely upon accomodating instruction to cognitive differences among learners. Thus, each learner's educational program is tailored to suit him in terms of his level of acquisition of requisite knowledge and skills, his rate of learning, and, to some degree, his style of learning. But, just as learners differ in educationally important ways on cognitive dimensions, they also differ widely on affective or what we might call motivational [illegible]ors. Moreover, the latter differences probably account for a much larger portion of the variation in performance on learning tasks than do the former. It was with this problem in mind, that a systematic research and development effort in the area of motivation was launched at the Wisconsin R and D Center in 1967. The objective of this effort has been, not so much to accommodate instruction to differences in motivation, but to develop ways to increase both the motivation to learn and the self-directedness of all students. Research and development activities involved in achieving this objective have included identification of behaviors indicative of high motivation and self-direction, identification of principles about motivation and learning based on sound research and theory, and the development and evaluation of motivational-instructional procedures which can be utilized by teachers for effective implementation of the principles within the elementary school classroom.

While the system of Individually Guided Motivation (IGM) which has resulted from these efforts is intended for the elementary school level, several aspects of IGM may be of interest to those involved in developing programs for the adult independent or distance learner. Certainly, motivation plays a large role in the learning of adults. Although the specific motivational-instructional procedures which are utilized in IGM are probably not appropriate, in their present form, for older learners, many of the motivational principles upon which these procedures are based are as applicable to adults as to children. This paper will discuss some of these principles of motivation, indicate briefly how they are applied in the IGM system, and suggest some ways in which they might be effectively implemented in correspondence or other forms of distance educa-

tion. (For a comprehensive description of IGM see Klausmeier, Jeter, Quilling & Frayer, 1973; for a review of research on which IGM is based see Ghatala, in press).

PRINCIPLES OF MOTIVATION

A definition which we have found useful for guiding the development of IGM states that motivation is an aroused state of an individual characterized by the student's initially attending to the teacher and then working at assignments and activities until they are completed. The motivational state of an individual student is directly related to how well he learns and achieves as well as to how he conducts himself as an independent learner. The term individually guided is used to emphasize the fact that the individual rather than the class is the instructional unit.

The motivational principles of IGM have been derived from extant psychological theory and research. Those principles which appear to have direct relevance for adults as well as children are listed in Table 1. The principles are stated as internal conditions of the learner which determine his level of motivation. From the principles can be derived guidelines which can direct teacher behavior or the design of curriculum materials. These guidelines are listed next to each principle in Table 1. Let us examine each principle and guideline in more detail.

Focusing student attention

In IGM teachers are instructed in how to utilize almost every aspect of the environment to capture and sustain children's attention. Particularly emphasized is the effectiveness of engaging as many of the student's senses as possible when initiating a lesson. Instruction which appeals to sight and hearing and perhaps also smell and touch certainly gains and holds the learner's attention better than that utilizing only sight or hearing alone. The increased use of multi-media presentation in distance learning is certainly in accord with this motivational principle. Some additional techniques for focusing attention which can easily be incorporated into correspondence courses or other forms of distance learning are:

a Raising a question is more likely to hold a learner's attention than giving information.

b Presenting something novel to the learner is more likely to gain his attention than presenting something familiar.

c Changing the tempo and pace of activity is more likely to increase attention than maintaining an even tempo.

d Involving the learner in discussion is more likely to hold his attention than presenting information.

e Ensuring the learner's understanding helps hold his attention.

Helping learners set and attain goals

In the IGM system, teachers receive inservice training in how to help children develop effective goalsetting behavior. Center research (Kennedy, 1968; Gaa, 1970) has indicated that children improve dramatically in motivation and subsequently in subject-matter achievement once they are able to independently set learning goals and monitor their progress toward their goals. At this level of schooling, goals are actually selected by the student from among the learning objectives prescribed by the school. Inexperienced learners need to learn to set realistic goals which they can accomplish with a reasonable amount of effort. The teacher in IGM spends a good deal of time with individual children or small groups of students coaching them in goal selection and providing feed-back and reinforcement to shape independent goal-setting behavior. With practice students learn to set both short-term goals (e.g. "I will be able to correctly spell 10 new words from the level I vocabulary list by tomorrow morning") and long-term (for this level) goals (e.g., "By the end of the week, I will read two library books and be able to give an oral report for each").

Adults, particularly in nontraditional forms of study are much more free to set their own learning goals. Many adults, especially those engaged in distance education, are presumably proficient in setting realistic short-term and long-term educational goals. However, some may not be so proficient and may consistently set goals which are either impossible to achieve or far below their capability. Both types of behavior may be due to an exaggerated fear of failure along with an acquired tendency to ascribe out-comes as being due solely to ability and/or luck rather than personal effort. Both types of unrealistic goal-setting have a high probability of resulting in non-completion of a particular course or, more drastically, termination of all educational endeavors.

The advisor of the adult engaged in independent study can do much to diagnose and help the learner change his self-defeating behavior. To do this the advisor must have comprehensive information regarding the background of students. A learner with a record of failures or incompletes needs special help in overcoming the adverse motivational effects of past failure. The advisor can guide him in selecting learning tasks (a course of some subset of course objectives) which he can complete easily given some effort. As the learner's confidence increases, he can be guided to higher-level tasks requiring more persistent effort for success. Through practice, with feed-back and reinforcement from the advisor, the adult can learn to assess realistically his ability and skills and can set his own learning goals which he will persist in attaining.

In addition to an advisor skilled in coaching goal-setting behavior, there must be provision within correspondence courses or other forms of distance education of learning tasks of varying levels of difficulty. Research (see Weiner, 1974) indicates that tasks of intermediate difficulty (tasks on which a particular student has

about a 50-50 chance of succeeding) maximize motivation. Performance on such tasks provides the most information to the learner concerning his ability and effort; success at these tasks promotes a feeling of competence. A learner who sets goals of intermediate difficulty for himself is constantly reinforced for expending effort to achieve success. He becomes less likely to rationalize lack of effort by ascribing outcome to ability or luck.

It should be noted that goal-setting behavior as described above refers largely to the setting and attaining of immediate, short-term learning goals. The assumption is that proficiency in this type of behavior is vital to the ongoing learning process. The setting and striving for long-term educational and life goals is motivationally important, and the relation of such goals to success in distance education will be discussed further in a later section. However, proficiency in setting and attaining relatively short-term goals is a necessary precursor to attaining more remote goals. For example, it is doubtful that the long-range goal of becoming a doctor will be realized if the student cannot set and attain such sub-goals as gaining sufficient mastery of anatomy or biochemistry.

Providing feedback and correcting errors

Feedback has two functions: (1) to help the learner ascertain which of his performances are correct or adequate, and (2) to enable the student to correct or improve performance. Writers in the field of correspondence education have always stressed the importance of rapid and complete feedback to the distant learner (e.g., Childs, 1963; Wedemeyer, 1963). In addition, research on distance education (Bååth, 1972) has confirmed this traditional wisdom and also indicated some parameters which distinguish effective forms of feedback. For example, following multiple-choice tests, "long comments" which provided the correct response and indicated in detail why the learner's response was incorrect, were found to result in better retention and increased the correct answer and referred the learner back to appropriate sections of the instructional material.

Educational technology has provided new methods which capitalize on the motivational principle of feedback. Programmed instructional material is designed specifically to provide immediate and frequent feedback to the student. Computers are also being used in some situations to provide rapid and accurate feedback (see Bååth, 1972). Such devices are useful, but one must keep in mind the tradeoff involved between efficiency and the possible adverse motivational effects of complete reliance on such depersonalized techniques. Feedback by personal contact either by mail, by telephone or whenever practical by face-to-face interaction will probably play an increasingly important motivational role as the utilization of mechanized learning-feedback systems grows. This is because personalized feedback can provide reinforcement (see later) as well as knowledge of results to the learner.

Providing exemplary models

Many skills can best be learned by observing and imitating a model. For example, learning the various strokes in golf or tennis is facilitated when these actions are demonstrated by a skilled player. Modeling as a motivational principle refers to the observation and imitation of behaviors indicative of positive attitudes toward learning. In IGM, teachers are trained to be good models themselves and are encouraged to provide children access to others who may be good models.

Hopefully, we have all experienced at one time or another the electric effect of being exposed to a model scholar and master teacher. Such people can inspire students to high educational aspirations and achievement. To have an effect such models do not have to be experienced in the flesh. Many can inspire through the written word or through the medium of television. Developers of distance education would do well to seek such exemplary models to construct and perhaps also deliver the instructional message. Anyone who doubts the effectiveness of this approach need only view the recently developed educational television series, "The Ascent of Man" (produced by the British Broadcasting Corporation) and be inspired by the intellectual brilliance and deep humanity of the late J Bronowski.

Providing reinforcement

Reinforcing and providing feedback are not the same thing. Feedback is limited to providing information about the correctness of a performance. Reinforcement is much more broadly defined as anything which follows a behavior that tends to strengthen that behavior. Many adults as well as children need more than information; they sometimes need to know that someone approves of their performance.

In IGM, schedules of reinforcement may be set up for underachievers or for children who have been classified as discipline problems. Reinforcements (sometimes concrete rewards but usually social reinforcers) are made contingent upon behaviors such as attending to learning tasks, initiating learning tasks, persisting in tasks, etc. External reinforcement is gradually decreased as the child begins to engage in learning activities because of the satisfaction he derives from the activity itself or because of the reinforcement provided by success in achieving a self-set goal. This decreased reliance on external reinforcement from others is only possible if learning activities and goals are meaningful to and have intrinsic interest for students.

Many adults experience pleasure (reinforcement) from engaging in interesting activities which challenge and exercise their skills and abilities. However, in many cases, an activity is more likely to be initiated, with greater effort expended for its completion, if it also results in some end which is desired by and meaningful to the individual. The desired reinforcement may vary widely from person to

person. For example, some adults may engage in formal independent study for the sheer joy of acquiring new knowledge and skills. Others may experience this pleasure but also find added incentive from gaining the approval of relatives and peers. Still others may view the study activity as a means to promotion and increased earning power. For many, all of these things plus others are desired ends and thus can operate as reinforcers.

A large discrepancy between an adult's expectations and the actual rewards he receives from engaging in a course of independent study can quickly kill motivation and lead to termination. One way to prevent this is through careful counseling of the potential student so that he can select courses which will come closest to fulfilling his expectations.

CONCLUSIONS

We have examined some of the principles of motivation on which IGM is based. It has hopefully been demonstrated that these principles are relevant to distance education of adults. Of course, this list of principles is likely to be incomplete for the purposes of adult distance educators. On the other hand, these principles are probably the ones most fundamental to the learning process.

The motivational principles and guidelines have been necessarily stated in general form. As in any other field, it is up to the practitioner of the art to design and test specific applications of such principles. For example, IGM consists of a set of motivational-instructional procedures which are specific ways of implementing the motivational principles within the elementary school classroom. The procedures are highly successful with children because elementary school teachers with the necessary experience and savvy had a large hand in designing them.

Similarily, while various ways of applying the principles to distance education have been suggested in this paper, it is really up to practitioners to evolve particular procedures or products which incorporate the principles in a way that is palatable to their audience.

Perhaps the principles can best serve as a checklist. That is, in developing courses for the distant learner, the educator might ask himself the following. Given the characteristics of the target learners; the content, skills, and attitudes to be taught; and the resources available how can I best:

- focus attention effectively
- help learners set and attain meaningful goals
- provide feedback
- provide dynamic models
- provide appropriate reinforcement

If these guidelines are kept explicitly in mind during the development of distance education courses, the end product will certainly be better in terms of promoting learning than if they are not.

BIBLIOGRAPHY

Baath, J.: New paths in home study. Paper presented at the Ninth International Conference on Correspondence Education, Warrenton, Virginia, May, 1972.

Childs, G.B.: Supervised correspondence instruction. In C.A. Wedemeyer (Ed.), The Brandenburg memorial essays on correspondence instruction – I. Madison: The University of Wisconsin, University Extension Division, 1963.

Gaa, J.P.: Goal-setting behavior, achievement in reading, and attitude toward reading associated with individual goal-setting conferences. Wisconsin Research & Development Center for Cognitive Learning, Technical Report No. 61, 1968.

Ghatala, E.S. (Ed.): The Effectiveness of individually guided motivation: A summary of the empirical evidence. Wisconsin Research and Development Center for Cognitive Learning, Technical Report, in press.

Kennedy, B.J.: Motivational effects of individual conferences and goalsetting on performance and attitudes in arithemetic. Wisconsin Research & Development Center for Cognitive Learning, Technical Report No. 61, 1968.

Klausmeier, H.J., Jeter, J.T., Quilling, M.R., Frayer, D.A.: Individually Guided Motivation. Wisconsin Research & Development Center for Cognitive Learning, 1973.

Wedemeyer, C.A.: Problems in learning by correspondence. In C.A. Wedemeyer (Ed.), The Brandenburg memorial essays on correspondence instruction – I. Madison: The University of Wisconsin, University Extension Division, 1963.

Weiner, B.: Motivational psychology and educational research. Paper presented at the annual meeting of the American Psychological Association, New Orleans, August, 1974.

TABLE 1

MOTIVATIONAL PRINCIPLES AND COROLLARY GUIDELINES[a]

Motivational Principle	Guideline
1 Attending to a learning task is essential for initiating a learning sequence.	1 Focus student attention on desired objectives.
2 Setting and attaining goals require learning tasks at appropriate difficulty level. Feelings of success with current learning tasks heighten motivation for subsequent tasks; feelings of failure lower motivation for subsequent tasks.	2 Help each student set and attain goals related to his educational program.
3 Acquiring information concerning correct or appropriate behaviors and correcting errors are associated with better performance on and more favorable attitudes toward the learning tasks.	3 Provide feedback and correct errors.
4 Observing and imitating a model facilitate the acquisition of positive attitudes toward learning and self-directedness in learning.	4 Provide real-life and symbolic models.
5 Expecting to receive a reward for specified behavior or achievement directs and sustains attention and effort toward manifesting the behaviors or achievement.	5 Provide reinforcement.

[a] Adapted from Klausmeier, H.J., Jeter, J.T., Quilling, M. R. & Frayer, D.A. Individually guided Motivation. Wisconsin Research & Development Center for Cognitive Learning, 1973.

Three Ways to Help Individual Learning by Discovery in Distance Education Situations

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Problem solving requires a great deal from the student. Unless a situation is created in which the problems proposed have already found solutions well known to the teacher, and providing the teacher helps the student by giving hints about the solution or about the steps toward the solution, this approach is full of traps and very often unsuccessful. But when such a situation is created, one may doubt that the student was really learning by discovery.

We developed three different types of help which do not imply any giving of hints about the solutions or about the various ways to reach them. They are general ways of tackling problems that can become real habits. Therefore they can be used at a distance, without any intervention of the teacher.

Each sort of help implies the introduction of a precise behavior in the spontaneous strategy of the subject. Two of them – a period of ideation and a periodical evaluation – have been found of real value to improve the problem solving behavior of the subjects as well as to increase the number of those who succeed in reaching a satisfactory solution.

A presentation of the research and of the main results will be followed by a discussion of the significance of the results and of their value for distance education.

This paper deals with a research project in which some types of behavior were suggested to adults involved in the solving of a particular problem. We hoped that these modes would change the "how to do" process of those adults and so increase their chances of success. The suggested behavior may be used in distance education when the teaching approach is problem solving.

With good reason, Gagné (1970) emphasizes that problem solving is a way of learning. It is very often used in adult education, although it does not seem to help creative transfer more than receptive learning does (Haslerud, 1972). The popularity of discovery learning may be explained by the fact that adults usually like it, and that it creates a favorable ground for the development of autonomy (Combs, Avila and Purkey, 1971).

When using problem solving as an educational approach, the teacher has to be very skilful to avoid two dead-ends: On the one hand, he may not give the slightest hint and let the learner "swim" alone; then a failure of the discovery process is at stake. On the other hand, the teacher may provide a series of clues; then there is no genuine discovery, the learner feels like on a trodden path, and a strong decrease in motivation follows.

We believed that those dead-ends could be overpassed if the learner was induced to give himself better working patterns, i.e. patterns that increase the chances of success of the discovery process. If we could pinpoint such working patterns, distance education would become easier and more profitable.

The aim of this research project was to find a few of those working patterns, and to evaluate three of them. First comes the theoretical background of the research, then the method and the hypothesis, followed by the results achieved and the study of the meaning of those results. While discussing the results, implications will be deduced for distance education.

THEORETICAL BACKGROUND

Theories related in some way or another with this research project have been used very loosely to build up the conceptual background. They were too general to be of real help. So we decided to make a series of observations as a basis for our investigation, keeping in mind the problems created by acting in this way. Three main observations emerged as the guide-lines of our conceptual setting:

1) Some people cannot succeed in solving a problem because they do not find any clue leading to a solution. They seem to contemplate the same ideas endlessly, even if these ideas are unsuccessful. The longer they try, the farther they seem to be from "getting out of it":

2) Some other do have a good clue, but fail because they do not know how to exploit it.
3) Anxiety that tends to develop when a solution is vainly searched for is one of the factors that could explain the failure in the two preceeding cases.

From these observations we developed three working patterns which could improve the rate of success. We offered these working patterns to adults working at the solution of Maier's Hatrack problem.

The working patterns were devised to meet the following requirements:

- they may be used by a subject working alone,
- they do not include any clue on the problem or on the way to solve it,
- they require no lengthy training
- they may be used again by the subject once the experiment is over.

These requirements did not allow the use of well known working patterns, for instance, those used by Burack and Moss (1956), Corman (1957), and Katona (1940) in the study of transfer, and by Maier (1970) or Saugstadt and Raaheim (1957) in their study of the creative process. Creativity training programs (Parnes, 1967) and group creativity techniques, such as Synectics and Creative Problem Solving, could not be used either.

Then we designed three working patterns and offered them to the subjects as helping means. These patterns are:

1) ideation,
2) stereotyped questions given at regular intervals,
3) relaxation.

Details on these helping means will be given after the description of the experimental scheme.

METHOD

The various aspects of the method are dealt with under the following headings:

- experimental scheme,
- description of the three types of working patterns suggested to the subjects,
- description of the problem submitted to the subjects,
- description of the sample, collected data, procedures, and model of analysis of the results.

The various hypotheses will be described afterwards.

Experimental scheme

The experimental scheme is a simple one. Results obtained by each group to whom one of the working patterns is suggested, are compared to those of a control group. All must work on Maier's Hatrack problem. Results are compared in respect of:

a) the number of subjects who succeed,
b) the subjects' behavior dealing with the problem.

We had to take care of a factor which, according to many authors (Wallach and Kogan, 1965), could affect the results of the preceeding comparisons: the subjects' general level of anxiety. Cormier's French version of the IPAT (Cormier, 1962) has been used to measure it. We found no relationship between this factor and the issue of the Maier's problem.

The I.Q. of only 15% of the total sampling has been assessed because the subjects were of higher intelligence, as it will be seen later on. Indeed most authors agree that the general level of intelligence has no bearing on creativity when people are largely above normal. In this research, the I.Q. has been measured by means of the Canadian version of the Weschler-Bellevue, The Epreuve Individuelle d'Intelligence Générale (Barbeau and Pinard, 1963). No relationship has been found between the subjects' I.Q. and the issue of the Maier's problem.

Working patterns

1) Ideation: The ideation process lasts for 12 minutes. During this period of time, the subject is instructed to write down as many ideas as come to his mind concerning the particular problem. He is warned to search for quantity and to differ judgment. These two aspects of the ideation process are well known – see, among others, Osborn (1953), and Parnes (1967).

With the help of ideation, it is hoped that the subject will "dig up" any useful knowledge already in his possession. According to Gagné (1970), this is one of the conditions of success.

The proper time to introduce ideation is all but important. No precise information could be gathered on this topic. So, after a pilot study, we decided on three moments:

a) After 20 minutes working. The Maier's problem conditions being what they are, ideation is thus suggested when the subject has exhausted his personal resources trying to solve it,
b) Immediately after the problem has been given to the subject. In this case, he has not had enough time to put up a hypothesis or to consider a strategy,
c) After 2 minutes working. Now ideation comes when the subject is acquainted with the various aspects of the problem and has had time to try a few ideas.

2) Stereotyped questions: The aim of stereotyped (or standardized) questions is to induce a behavior similar to what is obtained by Piaget when he asks someone about events that just happened (Flavel, 1963). Much like Piaget, we observed while testing subjects that some questions may entice the subject to explore the reasons of his behavior, and to locate this acting in the problem solving process. The Piagetian questions are such that they bring the subject to reveal himself, but at the same time, respect his idiosyncrasy in his attempts to solve the problem.

It should be noticed that Piaget's aim was to study the cognitive process while ours is to help an adult solving the Maier's problem by a self-evaluation of what he has done. So our technique is suggested by Piaget's work, but is different, consisting of stereotyped questions that are respectful of the idiosyncratic process of each subject. These questions are asked at regular intervals – every 5 minutes – the answer being recorded.

The different ways to ask the questions were experimented. A first group of subjects were asked one question (the same question repeated every five minutes), while the other had two (repeated every five minutes). The sole question is: "WOULD YOU EXPLAIN TO ME WHAT YOU HAVE DONE (or THOUGHT, if the subject has done nothing) SINCE THE LAST QUESTION (or SINCE YOU BEGAN WORKING, if it is the first question)?" This question is aimed at an appraisal of what has been done by making the subject more conscious of the work achieved.

When there are two questions, the second one is linked to the one already described. When the subject has answered the question on what he has done, the experimenter takes one by one the components of the answer and says: "YOU TALKED ABOUT . . . HOW COULD YOU USE THIS TO SOLVE THE PROBLEM?" The double question aims at integrating two aspects in the evaluation: making the subject more conscious of what he achieved, as well as its usefulness to solve the problem.

3. Relaxation: The relaxation period, as well as the ideation period, lasts for 12 minutes. Its aim is to reduce the subject's tension. This is obtained by making the subject forget the problem, and by concentrating on his own physiological functioning, or more precisely, on his respiration. A slower respiration is indeed accompanied by a lower level of tension. This effect was induced after Gunther (1968). Considering the results of a pilot study, it was decided that the relaxation period would be introduced after 20 minutes working.

Problem submitted to the subjects

Maier's Hatrack problem (Maier, 1970) was originally set as follows: A subject is put in a room where he finds two 1 inch by 2 inches wooden sticks of unequal length, and a C-clamp. Neither of the two sticks is long enough to reach any opposite faces of the room. The subject is asked to build up, in a limited period of time, a setting enough to hang a hat and a heavy coat on. Sometimes Maier accepts only one solution to his problem, sometimes he accepts many, one being better than the others.

The authors slightly modified the problem to adapt it to the project needs. Here are the features of the problem as it was used in this investigation:

a) The subjects were put at work on a reduced model. This allowed smaller size material and avoided large body movements. This particular point was very important, for large movements would have increased subjects heart rate, which was registered as a witness of their tension level. Here is a list of the necessary material:

- A Plexiglass box of 30x50x50 cm. The side facing the subject is open to ensure inside manipulations (CF. Figure 1),
- Two round Plexiglass sticks 1 cm in diameter, and 25 and 33 cm long,
- A C-clamp with jaw aperture large enough to fix the two sticks into it,
- A diminutive coat in woven material, 15 cm long, whose weight has been considerably increased by means of fishing plummets fixed in the lining, to ensure clear discrimination between efficient and bad settings.

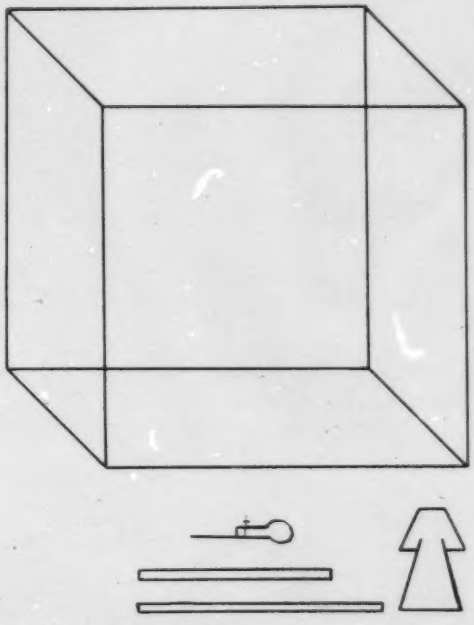

Figure 1. Material presented to the subject: a Plexiglass reduced model, two sticks, a C-clamp and a coat

The criteria for evaluating the solutions are:

- the setting is solid,
- it allows removing and re-hanging of the coat easily,
- it keeps the coat clear from the ground.

b) Working time allowed: After Wallach and Kogan (1965), the authors found that they should rather not limit the subjects' working time. In fact, it has been found that stopping the control group after 30 minutes was equivalent to no time limit. After 20 minutes the subjects seem to have given all they could and, in fact, no one succeeded if left to his own resources.

c) Solutions accepted: The three criteria aforesaid allowed nine different solutions, as shown in Figure 2. All nine solutions were considered as equally valid. So the problem used in this research is divergent (Cf. Guilford, 1967, for a definition of this concept).

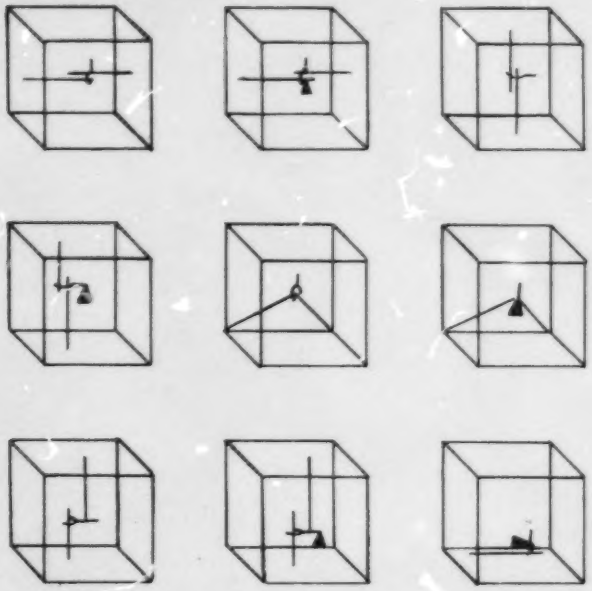

Figure 2. Nine solutions accepted to the Maier's Hatrack problem as modified for the present inquiry

d) Measurements registered: The experimenter draws every subject's manipulation on a prepared form, and notes time every minute. Thus manipulation timing is easily checked. He also notes the time of success. A setting is called a success when the subject considers his setting a solution to the problem.

Sample

The sample consists of 260 women of age 18 to 21. These subjects are all first year B.Sc. students at the Faculté des Sciences de l'Education and at the Département de Diététique of the Université de Montréal. The subjects are all female, because Maier (1970) noticed a different rate of success for male and female adults.

The 260 subjects were distributed in nine groups of approximately 30 each. The nine groups were submitted to the following treatments:

- G. 1: Control group, no particular treatment beside the problem to solve.
- G. 2: Relaxation after 20 minutes working.
- G. 3: Ideation after 20 minutes working.
- G. 5: Ideation immediately after the problem read.
- G. 6: Ideation after 2 minutes working.
- G. 7: One stereotyped question every five minutes.
- G. 8: Two stereotyped questions every five minutes.

Groups N° 4 and 9, unlike the six last ones, are submitted to two different treatments instead of one:

- G. 4: Ideation and relaxation after 20 minutes working.
- G. 9: Ideation after the problem is read, and two stereotyped questions every five minutes.

These two last groups were included in order to check if two kinds of helping give better results than one.

Collected data

The following data were collected for each subject:

a) a) Her score to the IPAT anxiety test.
I b) Her manipulations while working on Maier's problem.
c) Her success or failure.
d) Her heart rate sampled every minute. Telemetry was used to relieve subjects from the feeling of being "wired", and to make their movements easier. A very small size transmitter (1x1x0.5 cm) is fixed to a belt (Cf. Figure 3) placed just above the subject's waist, under the clothes. Transmitter signals are amplified, then picked up by an electrocardiograph. (The Heart rate data will not be analysed in this paper.)

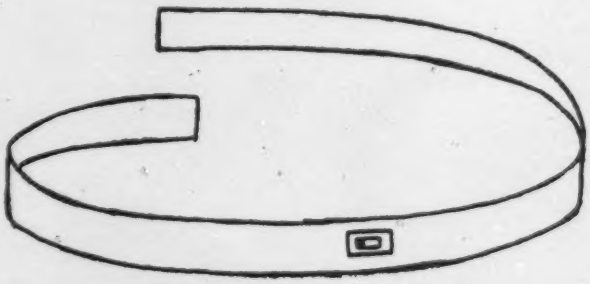

Figure 3. Belt and transmitter

Experimental procedure

A) Evaluating subjects' anxiety: All subjects are scored by means of the IPAT test approximately one month before being submitted to Maier's problem. The results of each subject is expressed in "sten" on a pounded scale.

B) Groups formation: The subjects are distributed in the eight experimental groups and the control group so that each gets as many subjects with a high, medium, and low level of anxiety. Subjects with a high level of anxiety (score 10, 9 and 8) count for 36 % of each group, those with a medium level (score 7, 6, 5 and 4) for 60 %, and those with a level (score 3 and less) for 4 %.

C) Working on Maier's problem: Each subject is met individually by two experimenters. The meeting lasts for at least 45 minutes. One of the experimenters collects the subject's heart rate while the other gives the instructions and notes the subject's manipulations. When experiment is over, subject is thanked and asked for absolute discretion, all subjects being from the same milieu [2].

Model of analysis

It has been mentioned that the authors were not only interested in increasing subjects' rate of success by providing them with helping means. They also wanted to test how the three types of help could affect manipulations. To do so, types of manipulations had to be identified. Then types associated with success had to be pointed out. A list of definitions will be given, followed by the various ways they have been used as tools to analyze the data.

List of definions: We have seen that each subject's manipulation is drawn by an experimenter. It is then identified by means of a model of analysis made of a series of definitions that allows distinction between:

A) various types of manipulations,

B) some relations of these manipulations between each other.

The series of definitions used in analysing the subjects' manipulations needed a long elaboration. A first series of definitions was worked out according to theoretical statements. Next, these definitions were tried on five subjects' records, and were rewritten to meet the requirements of these records. The rewritten series was tried on and modified to fit the peculiarities of new records until all the instances found could be satisfactorily classified. Approximately 20 records were needed for this second adjustment of the definitions. Then the series of definitions was ready for analysing the manipulations contained in the 260 records.

A) Definitions of types of manipulations

MANIPULATION: Any setting drawn by the experimenter. Manipulations are divided into two categories: explorations and solutions, then solutions are classified into various types.

EXPLORATION: A manipulation is called exploration in the two following cases:

1) When the setting is built up outside the Plexiglass box, no matter the number of components integrated. Such a setting may include the coat or not.
2) When the setting is built up inside the Plexiglass box, but includes only two of the following components: C-clamp, long stick, short stick.

SOLUTION: A manipulation is called a solution in the two following cases:

1) When the setting is built up inside the Plexiglas box, and includes at least one of the three components C-clamp, long stick, short stick, the coat hanging from one of the components.
2) When the setting is built up inside the box and includes the three components C-clamp, long stick, short stick, these being in contact. The coat is not included in the setting.

Any solution is classified into one of the four following types:

- forbidden solutions,
- successful solutions, noticed and unnoticed,
- possible solutions,
- magical solutions.

Here follows the definition of each of these types of solutions.

FORBIDDEN SOLUTION: The subject uses some "forbidden" attributes of the material, that is, attributes that deny elements of the problem definition itself.

SUCCESSFUL SOLUTION: A solution is successful when conforming to a series of criteria. Two cases may happen:

1) The setting does include the coat. Then:
   - the setting must be solid, will not collapse easily,
   - it must allow easy removing and re-hanging of the coat,
   - it must keep the coat clear from ground.
2) The setting does not include the coat. Then:
   - the setting must be solid, would not collapse easily if the coat was hung up,
   - it would allow easy removing and re-hanging of the coat,
   - the coat would clear the ground.

A success may be noticed or not.

NOTICED SUCCESSFUL SOLUTION: Solution complies with all criteria of success and subject shows clearly to experimenter that she considers her setting as a or the solution to the problem.

UNNOTICED SUCCESSFUL SOLUTION: Solution complies with all criteria of success, but subject does not show that she considers it as a solution to the problem. For instance, she keeps on working or she wrecks her setting and starts a different one.

POSSIBLE SOLUTION: There are three situations in which a possible solution occurs:

1) The two sticks and the clamp are fixed together. The coat is not part of the setting, it would touch the ground if it was included;
2) Sticks and clamp are fixed together and coat is not part of the setting. The setting would collapse if the coat was hung up;
3) Sticks and clamp are fixed together, coat is included in the setting which collapses easily.

MAGIC SOLUTION: There are three cases of magic solutions (These settings are usually wrong according to an elementary principle of physics.):

1) Sticks and clamp are fixed together, coat is not included. Setting cannot stand but for subject holding it.
2) Sticks and clamp are fixed together. Coat is included, but would not hang in place but for subject holding it.
3) Coat is placed on one of the sticks or on clamp. Setting obviously does not stand.

B) Definitions analysing relations of manipulations

The authors being interested in sequences of manipulations as well as in isolated ones, criteria were worked out to distinguish different types of sequences and to discriminate between tied up and isolated manipulations. Two kinds of sequences were defined: the common sequence and the delayed one. The definitions of these concepts are followed by the definition of the concept of transition.

COMMON SEQUENCE: Manipulations are in common sequence when:

1) During a series of manipulations, the setting is not re-shaped. It is studied as a whole which must be affected only by a rotation. There is a rotation when one or more components change position about horizontal plane.
2) During a series of manipulations, the setting is re-shaped. Then every part of the setting is considered. There is a sequence if:
   a) One or more components of the previous setting remain in place.
   b) The second setting belongs to the same "pattern" as the first one (Cf. Figure 4 for various patterns that were identified).

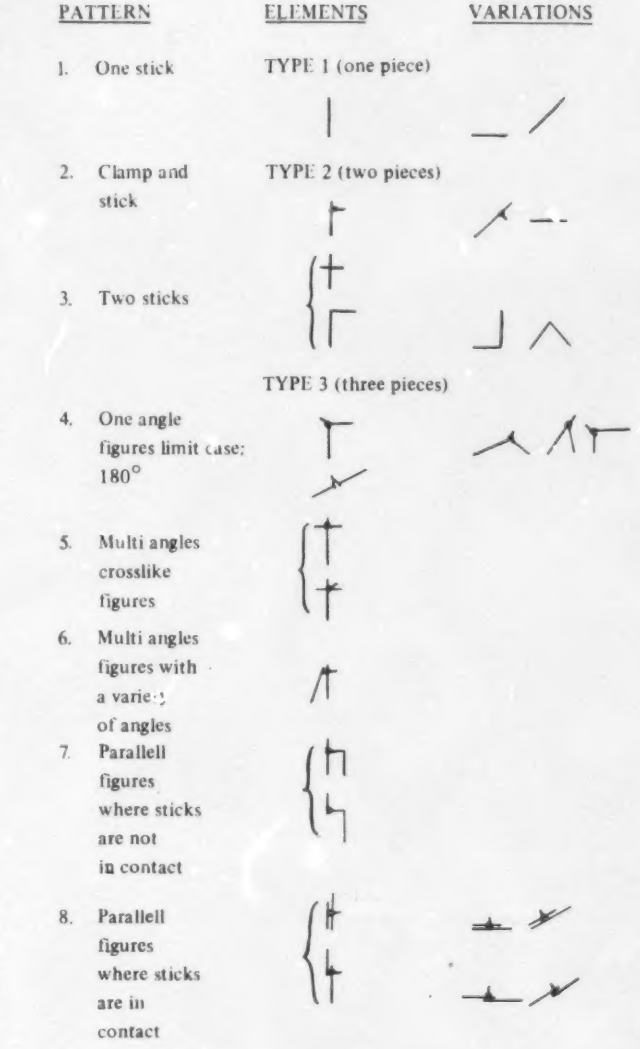
PATTERN
ELEMENTS
VARIATIONS
1. One stick
TYPE 1 (one piece)
2. Clamp and stick
TYPE 2 (two pieces)
3. Two sticks
TYPE 3 (three pieces)
4. One angle figures limit case: 180°
5. Multi angles crosslike figures
6. Multi angles figures with a varie·y of angles
7. Parallell figures where sticks are not in contact
8. Parallell figures where sticks are in contact

Figure 4. List of identified patterns

   c) Functions of the components reamin the same. The clamp functions may be:
      - to grip a stick,
      - to fix two sticks together,
      - to serve as a "point d'appui",
      - to hang the coat on.

      The functions of a stick may be:
      - to serve as a "point d'appui",
      - to serve as a building component.
   d) A component has taken the exact place of another one. There is no other change in the figure of the general setting.

DELAYED SEQUENCE: A sequence is considered to be delayed when one (or more) component of the material is manipulated, then a different one is handled and all these components are joined together in a subsequent manipulation. In this last "synthetic" manipulation, all components must retain their original position.

TRANSITION: A sequence being a series of manipulations, a transition is observed when a subject goes from an exploration to a solution, or the opposite. So one may observe exploration-solution transitions, and solution-exploration transitions. For particular subjects the number of transitions is not necessarily equal to the number of sequences because a sequence may include many transitions.

Definitions as tools for analysing data: Such a set of definitions had to be provided with instructions on how to use them. To meet this need, the authors had to:

1) Decide which one of the various factors contained in the series of definitions should be analysed.
2) Identify the factors related to success.
3) Decide on the computation of the manipulations contained in every analysis.

Each of these points is now dealt with in detail.

1) Among the possible analysis, 13 factors have been retained:

1. number of manipulations,
2. number of isolated explorations,
3. number of magic solutions,
4. number of possible solutions,
5. number of unnoticed successes,
6. number of exploration-solution transitions,
7. number of solution-exploration transitions,
8. number of exploration sequences,
9. number of solution sequences,
10. number of exploration-solution sequences,
11. length of exploration sequences,
12. length of solution sequences,
13. length of exploration-solution sequences.

2) What are, among the 13 factors just mentioned, those that are entitled to lead to success? A member of our laboratory, C. Roy (1973), found that all factors save N° 3 and 7 were related to success. How can this be explained?

a) An increment of factors N° 1 and 2 equals an increment in the subjects' production as a whole. According to Osborn (1953), this increment is on par with better chances to find a solution to the problem.

b) An increment of factors N° 6, 7, 8, 9 and 10 witnesses a better functioning in the subject who "explores" an idea through many manipulations instead of indulging in trial and error at each one. According to works dealing with strategy, mainly those of Bruner's team, this change of behavior goes with better chances of success.

c) An increment of factors 3 and 4 signifies a better organization of the material, that is, a better integration of the problem data. According to Guilford (1967), this increment goes with better chances of success.

3. Factors N° 1 to 10 were computed slightly differently than factors N° 11 to 13. This is because a subject who succeeds works for a shorter period of time than the one who fails, so that the number of working minutes may influence the number of manipulations, but not the length of the sequences.

So the number of manipulations, explorations, solutions, transitions, or sequences was computed in mean number by minute, while the sequences length was computed more simply in mean length for every subject.

HYPOTHESIS

As mentioned when experimental scheme was described, the authors were interested in testing if the three working patterns could increase the rate of success in subjects, and how these patterns were related to the evolution of their manipulations. So two series of hypotheses were designed. These are given here in abridged form, each series being divided in categories according to the experimental scheme. Categories A and B are headed with a synopsis, while category C itself is a synopsis of a great number of hypotheses. Series I deals with the number of successes (hypothesis A1 to A8, and B1, B2), series II is concerned with the evolution of the manipulations (hypothesis C1 to C3).

1. Hypotheses on the number of successes

A. Introducing one or two of the three working patterns increases the number of subjects who succeed to solve the Maier's Hatrack problem, as modified by the authors.

A1. The number of subjects who succeed after a 12 minute relaxation period introduced after 20 minutes working (group 2) is greater than the number of those who succeed without that help (group 1).

A2. The number of subjects who succeed after a 12 minute ideation period introduced after 20 minutes working (group 3) is greater than the number of those who succeed without that help (group 1).

A3. The number of subjects who succeed after a 12 minute ideation period introduced immediately after the problem is read (group 5) is greater than the number of those who succeed without that help (group 1).

A4. The number of subjects who succeed after a 12 minute ideation period introduced after 2 minutes working (group 6) is greater than those who succeed without that help (group 1).

A5. The number of subjects who succeed after a 12-minute relaxation period, followed by a 12 minute ideation period introduced after 20 minutes working (group 4) is greater than the number of those who succeed without that help (group 1).

A6. The number of subjects who succeed when they are asked a stereotyped question at 5 minute intervals (group 7) is greater than the number of those who succeed without that help (group 1).

A7. The number of subjects who succeed when they are asked 2 stereotyped questions at 5 minute intervals (group 8) is greater than the number of those who succeed without that help (group 1).

A8. The number of subjects who succeed when provided a 12 minute ideation period introduced immediately after the problem is read and 2 stereotyped questions asked at 5 minute intervals (group 9), is greater than the number who succeed without that help (group 1).

B. With the help of two joined working patterns, the number of subjects who succeed to solve the Maier's Hatrack problem, as modified by the authors, is greater than the number of those who succeed with the help of one pattern only.

B1. The number of subjects who succeed when they are provided with relaxation and ideation periods introduced after 20 minutes working (group 4) is greater than the number of those who succeed when provided with only either kind of help (groups 2 and 3).

B2. The number of subjects who succeed when provided with an ideation period introduced immediately after the problem is read and with 2 stereotyped questions asked at regular intervals (group 9) is greater than the number of those who succeed when provided with only either kind of help (groups 5 and 8).

Ii. Hypotheses on the evolution of manipulations

For the sake of brevity, a synopsis of the hypothesis concerned with manipulations is given here. There are 13 hypothesis for each of the 8 groups to which working patterns were suggested:

C1. In the groups who are suggested one working pattern (groups 2, 3, 5, 6, 7 and 8) or two (groups 4 and 9), the output of positive elements is greater than in the group who receives no suggestion (group 1). Those positive elements are:
- manipulations (factor 1),
- isolated explorations (factor 2),
- possible solutions (factor 4),
- unnoticed solutions (factor 5),
- exploration-solution transitions (factor 6),
- exploration sequences (factor 8),
- solution sequences (factor 9),
- exploration-solution sequences (factor 10),
- length of exploration sequences (factor 11),
- length of solution sequences (factor 12),
- length of exploration-solution sequences (factor 13).

C2. In the groups who are suggested one working pattern (groups 2, 3, 5, 6, 7 and 8) or two (groups 4 and 9), the output of neutral elements is smaller than in the group who receives no suggestion (group 1). Those neutral elements are:
- magic solutions (factor 3),
- solution-exploration transitions (factor 7).

C3. In the groups who are suggested 2 working patterns (groups 4 and 9), the output of positive elements i greater than in the groups who are suggested only one pattern (groups 2, 3 and 5, 8).

RESULTS

The results are presented in the same order as the hypotheses. For the sake of brevity, the verification of the later will not be seen in detail.

Success rate

Have the groups who are suggested one or two working patterns a higher rate of success than the control group?

The proportion of subjects who succeed in the experimental groups[3] goes from 16.6 % to 37.9 %, when it is of 16.6 %[4] in the control group (CF. Table 1). Experimental groups and control group show their greatest differences in the case of groups 6, 7 and 9, these being respectively of 19.1 %, 20.0 % and 21.3 %. These differences are significacant at the .05 level[5].

So it can be said that:

1) The subjects who are provided with an ideation period after 2 minutes working succeed in greater number than the subjects who are not provided with that help.
2) The subjects who have a break every 5 minutes to consider what they have done succeed in greater number than those who do not have it.
3) The subjects who are provided with an ideation period, followed by a break every 5 minutes to consider what they have done and sound its usefulness in solving the problem, succeed in greater number than those who are not provided with that help.
4) Ideation practised shortly after the problem has been read seems to be more efficient than after several minutes working.

TABLE 1

Number of subjects who succeed in each group and outcomes of comparisons between the number of successes in each experimental group and the control group, by means of Fischer's p test, used with Tocher's modification when relevant

Experimental conditions	Number of subjects in each group	Number of subjects who succeed			Proportion of successes			Value of p	Tocher's extreme cases
		1-20 min.	21-30 min.	Total	1-20 min.	20-30 min.	Total		
G.1 Control	30	5§	0	5	16.6%	0	16.6%		
G.3 Ideation after 20 min.	30	5§	0	5	16.6%	0	16.6%	–	
G.5 Ideation after problem is read	26	–	–	8	–	–	30.7%	.1756	.5785
G.6 Ideation after 2 min.	28	–	–	10	–	–	35.7%	.0873	.0254*
G.7 One question	30	–	–	11	–	–	36.6%	.0716	.5841*
G.8 Two questions	28	–	–	8	–	–	28.6%	.1786	.8060
G.9 Ideation and two questions	29	–	–	11	–	–	37.9%	.0607	.0158*

* Difference significant at the .05 level.
§ The difference between those two values is not significant at the .05 level.

What about those results? It seems that it is possible to help an adult who has to solve a multiple solution problem without giving any hint on the problem content nor on the steps leading to the solution. It is sufficient to allow him to adopt certain types of behavior.

The results described here have been produced in a laboratory setting. Nevertheless, the conditions designed for this inquiry are such that they allow inferences for educational situations.

Inferences for educational situations

It seems possible to improve the output of adults involved in discovery learning by inducing them in types of behavior like those that have been suggested to the subjects of this research project. In other respects, the character of those types of behavior is such that they may be practised in the absence of any teacher, and even become real habits. This would make them useful for distance education.

But there is a problem. It is always possible that a learner who is suggested to integrate such types of behavior in his usual working habits may not appreciate their usefulness, or he may reject them because he finds them annoying. This is usually the case when untrained groups are suggested techniques like Brain Storming or Synectics in order to solve a problem.

Because of the resistance one may have to overcome in introducing such helping types of behavior, it must be handled with care by the teacher. The authors doubt that merely suggesting behavior in written documents sent to the student would be efficient. Fixed films or videotapes would probably be better. But the authors are of the opinion that the best way to introduce these types of behavior is to suggest them during counseling interviews or to teach them during training sessions offered to the student when he pays a visit to the university campus.

In respect of ideation, our results also need some comments. It has been seen that ideation is efficient when provided immediately after the problem has been read, but not after a long time has elapsed. In a different project, Noël (1974), who worked according to Gagné's theoretical background, has found that an early introduction of ideation induces the use of a greater number of "principles" to solve the problem than a late one does.

How can those results be explained? In this research, it should be remembered that introducing an ideation period after 20 minutes working is equivalent to introducing it once the subject has exhausted all her potentials in her effort to solve the problem. So Noel's results and ours are in contradiction with a quite well known educational theory, at least for problem solving learning situations. According to this theory, the teacher should not intervene until the learner has done all that he can do and is facing failure.

Does the group who is suggested two working patterns attain a higher rate of success than the groups who are suggested only one pattern?

The groups involved in this comparison are groups 9 and 5 and 8. In group 9, success rate is 37.9 %, when it is 30.7 % and 28.6 % respectively in the two other groups (Cf. Table 1). None of the differences between these groups is significant at the .05 level[6] (Cf. Table 2).

TABLE 2

Comparison between the number of subjects who succeed in group 9, and in groups 8 and 5, by means of χ^2

Experimental condition	Number of subjects in group	Number of subjects who succeed	χ^2
G.7 Two questions	28	8	
			0.22§
G.9 Ideation and two questions	29	11	
			0.07
G.5 Ideation after the problem is read	26	8	

§For a one-tailed test, when df = 1, the tabled value of χ^2 at the .05 level is 2.71.

The meaning of the above comparison will be explained later, after having considered the manipulations produced by these three groups.

Study of each group's manipulations

Do the groups who are suggested one or two working patterns produce more positive manipulations than the control group?

This part of the analysis of results deals with the comparison of groups 3, 5, 7, 8 and 9 with the control group.

Group 3 – Save for two cases, those of the number of possible solutions and of exploration sequences, the mean of the various types of manipulations by minute and the mean length of the sequences produced by group 3, from the 20th to the 30th minute[7], are greater than the means of group 1 (Cf. Table 3). But the differences[8] between group 3 and 1 are always too small to be significant at the .05 level (Cf. Table 4).

Group 5 – Results obtained by comparison of groups 5 and 1 are much alike those obtained from groups 3 and 1. Save in the case of the number of possible solutions, the means of group 5 are greater than those of group 1 (Cf. Table 3). But the differences between these two groups are never significant at the .05 level (Cf. Tables 4 and 5)[9]. This lack of difference may be explained to a certain extent by the great variance within the subjects of group 5.

Group 6 – The results of group 6 are better than those of group 1 in all cases save one, the length of solution sequences, where they are equal (Cf. Table 3). But the differences between the two groups are significant in only three cases[10]:

- mean number of manipulations/minute,
- mean number of solution sequences/minute,
- mean number of exploration-solution sequences/minute.

TABLE 3

Mean and σ of the 13 analysis performed on the manipulations produced by groups 1, 3, 5, 6, 7, 8 and 9

Type of analysis	20th-30th min.		30 min.									
	G.1	G.3	G.1	G.5	G.6	G.7	G.8	G.9				
	M§	σ	M	σ	M	σ	M	σ	M	σ	M	σ	M	σ	M	σ
1.N.manipulations	1.05	0.53	1.27	0.56	1.14	0.52	1.60	0.86	1.87	0.62	1.92	0.84	2.14	0.98	2.38	0.83
2.N.independent explorations	0.18	0.15	0.22	0.20	0.23	0.15	0.29	0.21	0.30	0.15	0.29	0.26	0.44	0.31	0.48	0.38
3.N.magic solutions	0.26	0.31	0.34	0.27	0.24	0.26	0.42	0.32	0.50	0.30	0.35	0.29	0.47	0.39	0.72	0.60
4.N.possible solutions	0.16	0.18	0.09	0.17	0.14	0.14	0.07	0.07	0.17	0.12	0.18	0.18	0.17	0.17	0.18	0.16
5.N.unnoticed solutions	0.08	0.18	0.10	0.18	0.05	0.11	0.08	0.11	0.11	0.15	0.15	0.33	0.11	0.18	0.10	0.18
6.N.explor.-sol. sequences	0.09	0.12	0.12	0.09	0.13	0.20	0.16	0.11	0.22	0.11	0.23	0.15	0.18	0.15	0.16	0.11
7.N.sol.-explor. sequences	0.05	0.14	0.07	0.08	0.06	0.13	0.07	0.07	0.10	0.07	0.15	0.19	0.10	0.11	0.07	0.07
8.N.explor. sequences	0.12	0.11	0.12	0.09	0.15	0.12	0.21	0.19	0.23	0.14	0.28	0.18	0.27	0.16	0.29	0.16
9.N.sol. sequences	0.09	0.09	0.10	0.09	0.09	0.08	0.14	0.11	0.18	0.11	0.15	0.09	0.15	0.12	0.22	0.11
10.N.sol.-explor. sequences	0.08	0.07	0.13	0.09	0.11	0.08	0.14	0.11	0.20	0.11	0.15	0.10	0.16	0.13	0.16	0.11
11.Length explor. sequences	2.44	0.71	2.50	0.70	2.44	0.73	2.54	0.79	2.53	0.84	2.59	2.63	2.70	0.82	2.41	0.59
12.Length sol. sequences	2.48	1.40	2.55	1.38	2.49	1.46	2.58	0.97	2.49	0.83	3.05	1.19	3.31	1.45	3.48	1.36
13.Length explor.-sol. sequences	3.60	1.92	3.65	1.93	3.60	1.92	4.96	3.12	4.54	1.59	6.30	4.31	5.34	2.33	4.35	2.50

§ The results are expressed in mean number / minute for analysis 1 to 10, and in mean length for analysis 11 to 13.

So it seems that the total output of group 6 increases as well as do the relations that are generated between sophisticated settings, and between simple and sophisticated ones. Nevertheless, most of the time these output increment and greater persistence of effort in the following of tracks leading to solutions turn out in unsatisfactory organization of the problem components. This particularly appears in the increment of the mean number/minute of magic solutions.

Group 7 – Results of group 7 are constantly better than those of group 1 (Cf. Table 3), but the differences between the two groups are significant in four cases only[11]:

- mean number of manipulations/minute,
- mean number of exploration sequences/minute,
- mean number of solution sequences/minute,
- mean length of exploration-solution sequences.

It seems that this group shows an important increase in general output and in the number of relations established between simple settings, and between sophisticated ones, as well as a greater persistence in the movements leading from simple to sophisticated settings. Nevertheless, these improvements do not usually turn out in a better integration of the problem components which could generate a satisfactory solution.

Group 8 – Results of group 8 are all better than those of group 1, but differences between the two groups are significant only for the six following factors:

- mean number of manipulations/minute,
- mean number of isolated explorations/minute
- mean number of exploration sequences/minute,
- mean number of solution sequences/minute,
- mean length of solution sequences,
- mean length of exploration-solution sequences.

TABLE 4

Outcome of the F tests performed on the results of groups 1 and 3 (20th - 30th min.) and of groups 1 and 5, 6, 7, 8, 9 (30 min.)

Type of analysis	Value of F	
	G.1-G.3 20th - 30th min.	G.1-G.5,6,7,8,9 30 min.
Mean number / min. manipulations	2.52	8.97**
" " " independent explorations	0.64	2.94*
" " " magical solutions	1.21	5.30**
" " " possible solutions	2.11	2.35*
" " " unnoticed successes	0.15	0.82
" " " explor.-sol. transitions	1.44	1.85
" " " sol.-explor. transitions	0.35	2.40*
" " " exploration sequences	1.44	2.67*
" " " solution sequences	0.35	6.00**
" " " explor.-sol. sequences	3.52	3.00*
Mean length exploration sequences	0.17	0.56
" " solution sequences	1.22	3.61**
" " explor.-sol. sequences	1.20	3.26**

The number of analysis of variance being great, only the outcome of each analysis, i.e. the value of F is given.

The tabled value of F at the .05 level for 1 and 58 df is 4.02. The tabled value at the .05 level for 5 and 167 df is 2.27, and at the .01 level it is 3.14.

* Difference significant at the .05 level.

** Difference significant at the .01 level.

Considering these results, one gets a general feeling that the output increment and the better pursuit of tracks leading to solutions too often turn out in unsatisfactory organisation of the problem components. This is witnessed by an increased mean number/minute of magic solutions.

Group 9 – As in the previous groups, the results of group 9 are better than those of the control group, with one exception: exploration sequences are longer in control group than in group 9. Significant differences were found for the following factors:

TABLE 5

Comparison of results of groups 5, 6, 7, 8 and 9 with those of the control group (group 1). Value of Dunnett's tD

Type of analysis	Value of observed tD				
	1-5	1-6	1-7	1-8	1-9
N. manipulations	2.20	3.39**	3.80**	4.87**	6.04**
N. independent explorations	0.87	0.99	0.88	3.09**	3.68**
N. magic solutions	1.80	2.54**	1.12	2.35*	4.90**
N. possible solutions	1.80	0.75	1.03	0.77	1.03
N. sol.-explor. transitions	0.31	1.26	3.00**	1.33	1.33
N. explor. sequences	1.31	1.70	2.90**	2.68**	3.12**
N. sol. sequences	1.89	3.18**	2.26**	2.26**	4.90**
N. explor.-sol. sequences	1.13	3.18**	1.51	1.89	1.87
Length sol. sequences	0.27	0	1.74	2.55*	3.08**
Length explor.-sol. sequences	1.85	1.24	3.74**	2.41*	1.04

The value that an observed tD must exceed in order to be significant at the .05 level for a one-tailed test, with 6 and 167 df is 2.27. At the .01 level it is 2.89.

* Difference significant at the .05 level.

** Difference significant at the .01 level.

- mean number of manipulations/minute,
- mean number of isolated explorations/minute
- mean number of exploration sequences/minute,
- mean number of solution sequences/minute,
- mean length of solution sequences.

As in group 8, better results turn out very often in unsatisfactory organization of the problem components.

What conclusions can be drawn from the comparison of the various types of manipulations produced by groups 3, 5, 6, 7, 8, 9, and by the control group?

1) Evidence was shown of the efficiency of certain working patterns suggested to the subjects, in particular, an increment in the general output and in the pursuit of the tracks leading to solutions.

2) Ideation and questions liable to induce reflexive behavior in a subject seem to have slightly different effects upon manipulations. Ideation is likely to increase especially the general output, when questions seem to help mainly the pursuit of tracks leading to solutions.

3) The working patterns suggested to the subjects do not seem to have produced a much greater integration of the problem components. The authors believe that this explains to a certain extent the comparatively low rate of success, even for the groups who have the highest rate. The study of the results suggests that the difficulty in organizing the components is related to another one in the subjects, probably an incapacity to make up a clear idea of what they seek. It is likely that the use of metaphor and fantasy, as they are practiced by Prince (1970), would aid the subjects in this last respect.

4) A considerable increment of the number of successes in a group usually goes with a better quality of the manipulations, but the reverse is not true.

5) The constant superiority of the experimental groups over the control group, as it appears obviously in Table 3, suggests that the working patterns have a positive action on subjects' responses, even if that action does not secure success in the majority of instances.

Implications for educational situations

If what has just been said is applied to educational situations, one may expect that the two working patterns, thoroughly used, should bring the following results:

- mainly a blooming of ideas to solve the problem in the case of ideation;
- a blooming of ideas and a greater constancy in the exploitation of these ideas in the case of questions that tend to produce a reflexive behavior;
- an increment of successes.

Nevertheless, to secure a high rate of success, the teacher must be clever enough to find other working patterns to pair with those studied here.

Do the groups to whom two working patterns are suggested produce more positive manipulations than those who receive only one pattern?

To answer this question, various types of manipulations and the length of sequences produced by groups 9, 5 and 8 have been compared. Differences between these groups generally favor group 9 (Cf. Table 3), but four of these differences only are significant at the .05 level (Cf. Table 6)[12]. These differences deal with the following factors:

- mean number of manipulations/minute,
- mean number of possible solutions/minute,
- mean number of solution sequences/minute,
- mean length of solution sequences.

What about these results? If they are compared with the already described ones about the number of successes in groups 9, 5 and 8, one gets to think that joining two working patterns slightly improves subjects' output, but that this improvement does not suffice to insure a different number of successes.

The authors are not inclined to reject the reasons that assisted the formation of hypotheses B2 and B3, although these were not confirmed. These hypotheses were based on the fact that the problem solving process contains many steps (Guilford, 1967) and should require a variety of working patterns. The authors believe that the present results can be explained by the particular way the two

TABLE 6

Comparison of the results of groups 5, 8 and 9 (30 minutes of work) by means of a F test

Type of analysis	Value of F
Mean number / minute manipulations	5.75 **
" " " independent explorations	1.00
" " " magical solutions	5.48 *
" " " possible solutions	5.12 **
" " " unnoticed successes	0.11
" " " explor.-sol. transitions	0.08
" " " sol.-explor. transitions	1.45
" " " exploration sequences	1.7[illegible]
" " " solution sequences	4.80 **
" " " explor.-sol. sequences	0.25
Mean length exploration sequences	1.15
" " solution sequences	5.96 **
" " explor.-sol. sequences	1.06

The number of analysis of variance being great, only the outcome of each analysis, i.e. the value of F is given.

The tabled value of F at the .05 level for 2 and 85 df is 3.11. At the .01 level, it is 4.88.

* Difference significant at the .05 level.

** Difference significant at the .01 level.

working patterns have been introduced. One may question either the order in which they have been suggested, or the timing. There is even another explanation: one should not question the way to introduce the patterns, but the efficiency of these patterns taken alone. If it is the case, the latter should be associated with a third working pattern, for instance, one that could provide a better definition of the problem to be solved. The main role of this pattern would be to "potentiate" the effects of the others.

Limitations of the results

The signification of the results has been commented, as well as their implications for educational situations. Now some of their limitations will be reviewed.

1) These results have been obtained with female subjects. Would the suggested patterns be equally profitable to male?

2) The range of problem types is quite wide. One may wonder if the working patterns investigated here would be equally efficient for other problems as for Maier's.

3) The increment of the success rate obtained over the control group is important. For some groups, it is over 50 %. Nevertheless, if one considers the rate of success of the best groups (groups 6, 7 and 9), one realizes that it never reaches 40 %.

CONCLUSION

The authors feel that they have demonstrated the feasibility of helping subjects who try to solve a problem without giving them any clue, but simply by suggesting certain working patterns. These patterns can be repeated by the subjects in other circumstances and become habits of which the teacher may take advantage in discovery learning.

During the present research project, we have also developed a technique of analysis of a subject's trials to solve a problem. This technique allowed a better understanding of some of the operations involved in the solution on an "open" problem.

The authors are aware of weaknesses in the method as well as in the interpretation of the results. These may be explained by the exploratory character of the project. We would like to spend the few minutes of discussion that shall follow this paper to hear comments on ingenious ways to pursue this work.

NOTES

[1] This research was made possible by a grant of the Canada Council (N° S71-1277).

[2] Two subjects have been rejected. They did not know a solution to the problem, but had heard of details of the procedure.

[3] Results of groups 2 and 4 are not included here, for they are currently being used in a doctorate thesis which has not been defended yet. So no data shall be presented here on relaxation.

[4] Comparison between experimental groups and control group was made differently for group 3 and for the other groups. In the latter, the results of 30 minutes of work are compared, while in the former, the results of the last ten minutes of work only are compared.

[5] Owing to some characteristics of the data collected, differences were computed by means of the p test of Fisher (Cf. Siegel, 1956, pp. 96-104). This test being quite conservative, Tocher's motification (Cf. Siegel, 1956, pp. 102-103) was also applied when relevant.

[6] Those differences were evaluated by means of the χ^2 test (Cf. Siegel, 1956, pp. 104-111).

[7] In this case the comparison involves only the last ten minutes because ideation is introduced after 20 minutes working.

[8] Differences were evaluated by means of Fisher-Snedecor's analysis of variance (Cf. Edwards, 1959, p. 190). In no case was it necessary to apply a transformation to the data.

[9] The differences between groups 5 to 9, and group 1, was treated statistically in two steps. First a Fisher-Snedecor's analysis of variance was computed (Cf. Edwards, 1959, p. 100) – Cf. results in Table 4. Then a Dunnett's d' test (Cf. Kirk, 1968, pp. 94-95) – Cf. results in Table 5. In no circumstance the data needed any transformation.

[10] Magical solutions are neutral manipulations.

[11] Exploration-solution transitions belong to the neutral manipulations category.

[12] Those differences were computed by means of Fisher-Snedecor's analysis of variance (Cf. Edwards, 1959, p. 190).

BIBLIOGRAPHY

Barbeau, G.L., Pinard, A. (1963) Epreuve Individuelle d'Intelligence Générale. Montréal: Institut de Recherches Psychologiques.

Burack, B., Moss, D. (1956) Effect of Knowing the Principle Basic to the Solution of a Problem. J. Educ. Research, 50, 203-208.

Combs, A.W., Avila, D.L., Purkey, W. (1971) Helping Relationships. Basic Concepts for the Helping Professions. Boston: Allyn and Bacon.

Corman, B.R. (1957) The Effect of Varying Amounts and Kinds of Information as Guidance in Problem Solving. Psychol. Monogr. 71, N° 2 (Whole N° 431).

Cormier, D. (1962) L'échelle d'anxiété IPAT. Montréal: Institut de Recherches Psychologiques.

Edwards, A.L. (1959) Experimental Design in Psychological Research. New York: Rinehart (Eight Printing).

Flavel, J. (1963) The Developmental Psychology of Jean Piaget. Toronto: D. Van Nostrand.

Gagné, R.M. (1970) The conditions of learning. New York: Holt, Rinehart and Winston (Second Edition).

Guilford, J.P. (1967) The Nature of Human Intelligence. New York: McGraw Hill.

Gunther, B. (1968) Sensory Awakening and Relaxation. In H. Otto and J. Mann, Ways of Growth. New York: Viking.

Haslerud, G.M. (1972) Transfer, Memory and Creativity. Minneapolis: University of Minnesota Press.

Katona, G. (1940) Organizing and Memorizing. New York: Columbia University Press.

Kirk, R.E. (1968) Experimental Procedures for the Behavioral Sciences. Belmont, California: Brooks/Cole Publishing.

Maier, N.R.F. (1970) Problem Solving and Creativity. Belmont, California: Wadsworth Publishing.

Noël, G. (1974) L'influence de l'idéation sur la résolution d'un problème. Thèse de Ph. D. Faculté des Sciences de l'Education. Université de Montréal.

Osborn, A.F. (1953) Applied Imagination. New York: Charles Scribner's Sons.

Parnes, S.J. (1967 Creative Behavior Guidebook. New York: Charles Scribner's Sons.

Prince, G.M. (1970) The Practice of Creativity. New York: Harper and Row.

Roy, C. (1973) Etude différentielle de comportement dans une solution de problème. Thèse de M.A. Faculté des Sciences de l'Education. Université de Montréal.

Saugstadt, P., Raaheim, K. (1957) Problem Solving and Availability of Functions. Acta Psychologica, 13, 263-278.

Siegel, S. (1956) Nonparametric Statistics for the Behavioral Sciences. New York: McGraw Hill.

Wallach, M.A., Kogan, N. (1965) Modes of Thinking in Young Children. New York: Holt, Rinehart and Winston.

Study Methods

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The paper that follows explains some study methods and describes how one particular study method can be structured into a correspondence lesson.

The study method is also implicit in the way the paper is presented. I do this to show how a lesson can be laid out to include the study method. Obviously some of the techniques which you would use in a correspondence lesson have been omitted. For example I do not ask questions of you in the course of the paper and I do not ask you to recite aloud in the course of the paper. However I do ask you to raise any points which may not be clear in the paper and of course to disagree with any of the ideas presented in the paper.

PREVIEW

Are you sitting comfortably now? — Preparation
Have you got plenty of light?
Have you got enough time to read this paper?
I hope you have been able to answer yes to these three questions because it is important that you get the best possible conditions when you do any reading for comprehension. The physical surroundings, whether you are tired or not and your attitude affect your comprehension considerably.

The paper is about study methods and recommends a particular kind of study method. You are a course writer or a potential course writer and have used a particular kind of study method when you were studying. You may also have encouraged your students either in a class or at a distance to use a particular kind of study method. I would like you to recall the kind of study method that you used and remember any study methods about which you may have read. — Mental Set

Before you begin the paper I would like you to glance quickly over it, reading the headlines and the margin notes and reading the summary at the end of the paper. This will help you to read the paper more quickly.
Please do that now. — Survey

When you have read the paper you should be able to answer the following questions: — Questions

1 Which do I think is better, a course or booklet on how to study, or a study method structured within a correspondence course?
2 Which do I think is better, a structured course which does not explain the study methods to the students or a structured course which does explain the study method to the students?
3 What do the initials SQR 3 stand for?
4 What do the letters OK4R stand for?
5 What are the nine points in the Busan study method?
6 What is Paud Murphy and Snooks QR 3 study method?
7 How do you apply this study method to a correspondence course?

A STRUCTURED TECHNIQUE

The independent learner should be able to interact with material of any kind and benefit from it. We must develop habits of study in our students which will enable them to do this. These study habits can be looked on as the study technique or method. Some correspondence institutions do this by issuing booklets on how to study or they encourage their students to take a 'How to Study' correspondence course. This has the disadvantage that it separates the studying techniques from the actual business of study. To date, course writers in Turret have encouraged a study technique by structuring the courses we are writing. This seems to me to be a better arrangement as long as we let the student in on the study technique we are encouraging him to use. We should make our technique explicit. If we do this we can gradually wean the student from — In or out

his dependence on our material and applying the study technique in a structured situation to applying the study technique to other materials.

There are many questions which we must consider and which I skip to some extent in this paper such as – Will the same study technique work with content and skill subjects?

→ The group should consider the steps involved in this study method and should discuss whether any steps should be added or substracted.

STUDY METHODS

I will now describe three study methods and if necessary I will expand verbally on each of them.

The first and perhaps best known is called the SQR3 method and was developed by Professor S.P. Robinson.

The steps in this method are:

SQR3

1 Survey. Look at the headlines and diagrams.
2 Question. Turn the headlines into a question. Turn the title into a question.
3 Read. Read actively to answer the questions.
4 Recite. Recite aloud from memory in your own words what you have read.
5 Review. Jot down notes about what you have read. Reread those notes occasionally.

The second method I will describe is called the OK4R method.

It is based on the SQR3 method. The steps in this method are:

OK4R

1 Overview. Look at introductory paragraphs and summary, also headlines.
2 Key ideas. Get the key ideas and ask questions about them.
3 Read. Read to answer the questions.
4 Recall. Without looking back try to answer questions about the material.
5 Reflect. Think about what you have read. Give yourself time to relate it to other material.
6 Review. Get your notes down, reread them periodically.

The third study method I will describe I call the Tony Busan method after the person from whom I learnt it.

It isn't as easily lettered as the other method. Basically the words involved are Time, Amount, Knowledge, Question, Survey, Preview, Inview, Review, Note.

BUSAN

1 Time. Decide on the time you intend to spend on your studies.
2 Amount. Decide on the amount of material you are going to cover in that time.
3 Knowledge. Jot down quickly some points you already know about the subject you are going go study.
4 Question. Set up the questions you want answered.
5 Survey. Look at diagrams, headlines, summaries.
6 Preview. Read quickly and selectively the whole body of the material you want to study.
7 Inview. Read actively to fill in gaps in your knowledge about the material.
8 Review. Make sure that you know what you have been studying.
9 Note. Jot down key points and ideas that will help you later when you are rereading the material.

→ Each of these three study methods is useful if applied properly and it might be useful for the group to discuss the three methods at this stage.

PAUD MURHY AND SNOOKS QR3

I am going to put together what I consider to be the best points of each of the three study methods outlined above, and will then look at ways of structuring courses to include or to encourage the student to use this particular study method. The steps involved in this method are:
Preparation, Mental Set, Survey, Question, Read, Recite, Review.

PMSQR3

1 Preparation. The student must be encouraged to choose the best physical surroundings in which to study. It is important that he is aware of the optimum study conditions. It is also important that the student decides on the amount of time he wishes to spend studying and on the amount of knowledge he wishes to get in that time. He should also make sure that he has sufficient breaks from study during his study time.

2 Mental Set. It is important that a student begins to think actively of the subject which he is going to study. He should recall his past knowledge about the subject and get a framework into which he can fit this new knowledge. PMSQR 3

3 Survey. The student should look quickly over the material to be studied. In particular he should look at headlines, diagrams and summaries.

4 Question. The student should ask questions about the material he is going to study.

5 Read. The student should read actively to answer those questions. He should also be encouraged at this stage to read with a pencil and to circle key words and key ideas which may help.

6 Recite. The student should be encouraged to say aloud in his own words what he has learnt.

7 Review. The student should jot down notes and summaries on the material he has been studying and he should reread it at defined intervals.

> The group should consider the steps involved in this study method and should discuss whether any steps should be added or subtracted.

THE COURSE

If we decide on a particular study method and wish to encourage our students to follow that particular method, we should then structure our course to encourage actively students to follow that particular study method. I am going to suggest ways in which we can structure courses to include Paud Murphy and Snooks QR3 study method.

1 Preparation. During the lesson or the course the student should be asked if he is studying under quiet and well lit conditions. The course writer should explain that he can learn more when he studies under good conditions. We should also divide up our material into manageable units, for instance into half hourly lessons. P

2 Mental Set. We should begin a lesson by asking the student a question about material he has learnt previously. This will help him to understand the material we are going to present in the lesson. If it is difficult to ask a question we should present statements about the material he has learnt. In this way we can make the student think actively of the subject by recalling at the beginning of each lesson the material he learnt in the last lesson or in the last relevant lesson. M

3 Survey. We should encourage the student to look quickly over the lesson, concentrating on headlines and margin notes. Our headlines should be very carefully designed to summarize the material. At this stage of the lesson also we can include a content summary which briefly describes the material that the student is going to learn in the lesson. S

4 Question. We should now set up our behavioural objectives for the lesson in the form of questions that the students answer at the end of the lesson. To date we in Turret have been putting our objectives before our content summary. There is some evidence to show that it may be better to put our content summary before our behavioural objectives. Q

5 Read. Here we should consider the best type face for the student and we should break up the material into manageable units. We should also ask questions about the material as the student is studying. The course should encourage the student to read actively and to circle words or key ideas which may help the student when he is reviewing the material later. R

6 Recite. We should encourage the student to read certain parts of the lesson aloud. We can also ask the student at the end of the lesson to put into his own words the material he has been studying in the lesson. An exercise in the material at the end of the lesson will also help this. R

7 Review. At the end of each lesson, that is after the exercise, we should have the summary which puts together all the ideas in the lesson. The student should be encouraged to read this summary which puts together all the ideas in the lesson. The student should be encouraged to read this summary carefully. We should also include review material at a later stage. If we include review quizzes at appropriate stages in our courses, the student should be able to remember for much longer periods. R

The well structured lesson should begin with a recall of past work. This should be followed by a content summary, and subsequently by behavioural objectives in the form of questions The lesson

that the student will be able to answer at the end of the lesson. Within the body of the lesson there should be headlines which summarize the material, and the student should be encouraged to study under the best conditions. The type face should be clear and questions should be set throughout the lesson. At intervals the student should be encouraged to stop and recite aloud what he has learned or reflect on what he has learned or jot down notes. The lesson should conclude with an exercise which makes the student recall what he has learned. After the exercise there should be a summary. At appropriate intervals in the course, preferably at irregular intervals, there should be short review quizzes which test materials from the last five or ten lessons.

→ The groups should now consider other ways of adapting this study method to our courses, or of adapting other study methods to our courses.

SUMMARY

The writer of this paper felt that it was better to structure a course to encourage a study method rather than to give the student something separate about study methods. He looked at three study methods, the SQR3, the OK4R and the Tony Busan method. He then put forward a new study method which he called the Paud Murphy and Snooks QR3 study method. The steps in this method were preparation, mental set, survey, question, read, recite and review. A course can be structured to encourage this study method if it has recall of past work, content summary and behavioural objectives, headlines, questions, review quizzes, exercises and a summary.

How to Make Good Students – and How to Make Students Good

An Introduction to a Discussion on the Value of Correspondence Education from the Student's Point of View

Mr. Arno Saxe

1) Is correspondence education being outdated by modern massmedia – television, videotape and other hard-ware devices?

2) Even the most convinced correspondence educator cannot dispute the fact that tv is much more efficient in imparting knowledge than the oldfashioned printed paper. But can the tv-teacher always teach, and can the tv-student always learn?

3) Is it true that traditional face-to-face education is superior – though more expensive – than letter-to-letter education?

4) What about the teacher's role in the future. Suppose good students can do entirely without him?

5) What is, by the way, meant by a "good student"? Perhaps he who always writes the right answers, gets top marks and never bothers his tutor with his problems if he gets lost in a riddle?

6) If the good student is the type we want – how do we get him, or (if he isn't good enough) how do we make him good?

7) Many students need consultation and advice before enrolling for a course. Can this be carried through satisfactorily by means of correspondence? If not, what then?

8) Dropouts are to be found in all sorts of schools, even t e best ones, oh yes even in mine. But suppose it is an easy way to get rid of those silly asses who lack energy and in erest in learning anything?

9) Of course, the business point must not be overlooked. If we shall avoid closing down, we must sell our courses. We are not running a school for pleasure. But is it possible to oversell?

10) If, in spite of our best intentions, we do not succeed in making good students (or making our students good), what shall we do with students who are bad and get worse and worse?

These or perhaps other provocating questions are to be put by ARNO SAXE, 57, managing director of Danmarks Brevskole ("The Correspondence School of Denmark") in Copenhagen. He will also give his personal points of view, based on 35 years of experience in the field of correspondence education.

Norms or Content?

The Assessment of Student Learning in Distance Education

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"In general, education has always been more proficient in selecting and certifying students who were already talented than in developing talents among the handicapped majority it eventually rejects."

(Rowntree, 1973, p. 101)

Norm and content-referenced measures are compared with regard to their implications for students, employers and distance education institutions, as well as to their theoretical implications. In the norm-referenced approach, which has been predominantly used in education so far, emphasis is placed on the comparison of the performance of the students among themselves, whereas in the content-referenced approach attention is centered on the attainment of educational objectives by the students.

The authors favor the second approach because its diagnostic function is useful to both the students and the educational institution, and because of the impetus it gives to the specification of educational objectives. They also argue that content-referenced measures are theoretically valid.

This paper is about assessing student learning. Although it is fashionable in some education circles to oppose the very idea of assessment we assume that this romantic attitude has made little headway in distance education. After all, to put it brutally, student assessment is really what distinguishes a correspondence course from a book club. However, agreement on the need for assessment does not imply agreement on the purpose of assessment, still less on how assessment should be carried out. This paper compares two approaches to assessment, based on norms and content respectively, and discusses their implications for students, employers and institutions engaged in distance education, as well as some of the theoretical issues involved.

NORMS VS CONTENT

In most institutions students are given marks or grades at various stages in their education. These grades may be expressed as percentages (e.g. 75%) Greek or Latin letters (e.g. β or B) or Arabic numerals (e.g. 2nd class honours). We are not concerned here with which system is used but rather with how these grades are attributed. One method consists of comparing the students with each other. Most sorts of educational test will reveal that some students perform very well at the test and some very badly, with the majority lying in between. It is then an easy matter to divide them into three groups, A, B, and C. The whole process can be made to look impressive by plotting the results on a bell shaped curve and slicing it appropriately. An esoteric science of educational statistics has grown up around this basically simple activity which is called norm-referenced measurement.

Another approach, which was given new impetus by an article published by Glaser in 1963, but which is also founded on a simple idea, grades the student by asking whether or not he has learnt what the institution was trying to teach him. For a short module of learning the answer will be a simple yes or no and grading is simplified to pass/fail, but in a longer course students may attain some objectives and not others and numerical grading is possible. We shall call this type of grading content-referenced measuremen .

Content-referenced measurement is usually known as criterion-referenced measurement, the expression used by Glaser. In order to avoid confusion with the expression "criterion-referenced interpretations", the term content has been adopted by the joint committee of the American Psychological Association (APA), the American Educational Research Association (AERA) and the National Council of Measurement in Education (NCME) in the latest edition of the Standards for Educational and Psychological Tests. The committe has this to say:

> "Interpretations of test scores traditionnally have been norm referenced: that is, an individual's score is intepreted in terms of comparisons with scores made by other individuals. Alternative interpretations are possible. Content-referenced interpretations are those where the score is directly interpreted in terms of performance at each point on the achievement continuum being measured. Criterion-referenced interpretations are those where the score is directly interpreted in terms of performance at any given point on the continuum of an external variable. An external criterion variable might be grade averages or levels of job performance (APA, 1974, p. 19)".

This article will be devoted to the norm- and content-referenced interpretations in this passage. It should be noted that content-referenced measures have also been called absolute measures (e.g. Cronbach, 1971) and objective-referenced measures (e.g. Gagné and Briggs, 1974).

As we have expressed it, the difference between content and norm grading is fairly sharp and logic seems to favour the content approach.

If we expect an airline to require that all would-be pilots should attain every objective of their training course, we can hardly defend the common practice in many educational institutions of failing a constant percentage of students every year (or of passing them all if the institution is hungry for their fees). However, such judgements become more complex in the context of distance education.

ASSESSMENT AND THE STUDENT

A norm-referenced measuring system tells the student whether he has interacted with a course more or less successfully than his fellows. In this respect it obviously encourages competition and as Bloom, Hastings and Madaus (1971) point out: "It is recognized that competition may be a spur to students who view others in competitive terms, but much of learning and development may be destroyed by primary emphasis on competition". Furthermore, the authors state:

"It is likely that the use of grades on repeated progress tests prepares student for the acceptance of less than mastery. To be graded C repeatedly, for instance, inclines a learner to accept C as his "fate" for the course, especially when the grades on progress tests are averaged in as part of the final mark".

In distance study, of course, competition is not a problem, indeed, many students miss the opportunity to compare their progress with that of others on the course. Many students at Britain's Open University, for example, have been heard to say that the most valuable aspect of the annual residential summer school is the chance to find out how the others are getting on relative to oneself.

Moreover, in evaluating one of the Télé-université's distance study courses the students were asked specifically if they were interested in knowing the average mark of the 2000 students enrolled. Seventy per-cent replied affirmatively (Cormier et Bernier, 1974a).

Nevertheless, despite this interest in how others are faring, it is very important, and particularly so in distance education, for the individual to know how he is progressing relative to the content and objectives of the course itself. Much of this diagnosis can be done without outside help and evidence shows that the self-assessment questions which are a feature of many correspondence courses are very popular with students (see e.g. Cormier et Bernier, 1974b).

Self-assessment questions obviously give results that are content-referenced since, by their very nature, they exclude comparisons with other students. However, a good self-assessment question should not only indicate to the student whether he has mastered the content which the question covers but also, in the event that this mastery is less than total, show him what he has failed to understand and what to do about it.

In this context it is encouraging to see the appearance of "problem books", such as e.g. "Organic Chemistry Problems" by Harpp, Chan, Roberts and Caserio (1972) designed in this manner. For a multiple choice question the distractors (i.e. the wrong answers) are not chosen at random but reflect the commonest errors (e.g. use of a wrong constant etc.) and students choosing these answers are referred to diagnostic help in the text.

These principles of self-assessment questions should also guide the assessment carried out by an institution during a course of instruction The aim should be to show the student how to direct his energies to those parts of the content where he is weakest.

In a distance study system with large numbers of students the computer can play a useful role in this process. France's Télé-CNAM has developed a computer feedback system which corrects the student's tests and sends him remedial material appropriate to his errors within a week (Daniel, 1974).

This diagnostic function is much less important in the assessment which accompanies the end of a course. This assessment should lead to formal recognition of what the student has achieved. Obviously the student who scores the highest marks may prefer recognition to centre round this fact, but for the majority a description of the content they have mastered may be more useful. In some cases, differences in content competency may lead to a pass/fail distinction. Our pilots, for instance, either do or do not get a certificate to fly a particular passenger airplane. Presumably some pilots are better than others but norm-referenced assessment of flying ability would be obviously unsuitable – as well as drawing attention to the fact that, as in any other group, half of our airline pilots must be of less than average airliner flying ability.

The way in which the results of content-referenced assessment are presented to the student should depend on the use he can make of it, as Popham and Husek (1969) have argued:

"Whether we wish to report the degree of less-than criterion performance should depend exclusively on the use we can make of the data. For example, if there are only two courses of action available to the individual, depending on his success or failure with respect to the criterion, then we need only report it as that, success or failure. However, if some differential experiences are to be provided on the basis of the degree of his less-than criterion performance, then one would be interested in how far away he was from the criterion. For instance, if there were two remedial multiplication programs available, one for those very close to criterion and one for those who scored 60 per-cent or below on the 20-item examination, then we would report the degree of his performance. The point is that such gradations in reporting are only a function of the alternative courses of action available to the individual after the measurement has been made (Popham et Husek, 1969, p. 7)".

ASSESSMENT AND THE EMPLOYER

From the point of view of an employer the key feature of the diplomas and attestations presented by a future employee is that they allow him to economize on the information gathering process. Imagine if every employer felt obliged to submit all candidates to a battery of examinations to determine what education they had received. Reliance on school, college, university and other transcripts is much easier.

But what should the transcripts tell him? Does an employer prefer norm-referenced or content-referenced information? These are not simple questions. To begin with, many employers have reservations about the relevance to a particular job of training received in educational institutions. Berg (1970) in a book subtitled "The Great Training Robbery" has argued stridently that these reservations are often justified and Cormier (1974) has indicated that even the training of the teachers and administrators who will be the future employees of educational institutions is far from adequate.

We must face the fact that many employers see educational qualifications as indicators of general ability and aptitude. Evidently they do not hire historians to work as research chemists, but the employer's interest in the fine detail of what a candidate has studied previously is usually slight. Most teachers must have had the experience of meeting a former student who has discovered, to his satisfaction or chagrin depending on the individual, that employers are less interested in academic results than his instructors used to be.

There may be a vicious circle here. McIntyre (1970) describes commonly used assessment procedures in these terms:

> "... although we spend an enormous amount of time and money on assessment, very little is obtained which helps teachers to teach. Instead, we give pupils marks or grades, that is, we concentrate on judging them, on saying how "good" or "bad" they are, on putting them in an "order of merit". Assessment of this...sort can make no contribution to effective teaching. Its function is rather to select pupils, gradually as they pass through our schools, for different positions in the socio-economic hierarchy of our society, positions for which we then proceed to train them (quoted in Rowntree, 1973, p. 137)".

If this is true, then it is hardly surprising that educational institutions are often irrelevant to specific occupational needs. There is of course a strong correlation between student aptitude and student achievement. However, if indeed it is the aptitude rather than the achievement which interests an employer, then societies could save a vast amount of money by abolishing much of their educational systems and investing heavily in aptitude tests.

Naturally content-referenced transcripts are not a universal panacea. Much depends on the volume of information needed to describe the content learned. The number of words per minute that a typist can type is useful and succinct information for an employer. However he will evince less interest in knowing the detail of the thousands of behavioral objectives an engineer attained at university. We are back to the question of economy of information.

ASSESSMENT AND THE INSTITUTION

It is a striking fact that many of the world's most illustrious educational institutions (e.g. Oxford University and Ecole Polytechnique, Paris to cite but two examples) select the students they will admit on the basis of competitive examinations which the institution itself sets. This procedure both avoids the need for comparing the educational histories of different candidates and allows the institution to pick the most able students. Teaching the best minds a country can produce, though demanding in its own way, is not the same thing as teaching the average student.

Unfortunately many institutions which do teach average students adopt a similarly selective approach with the students they have admitted. If large numbers of students fail to reach a certain level of achievement it is, of course, much easier to blame the students rather than the teaching they have received. If institutions have moved away somewhat from this position Rowntree (1974) claims that:

> "It took programmed learning to make the moral break-through, by firmly accepting such responsibility for the student's attainment. If students did not learn from the programme then the fault lay in the programme rather than in the student (p. 138)".

Without disputing this statement it is fair to say that the distance education movement has also traditionally accepted such responsibility. Once a system uses assessment to judge itself rather than the students, content-referencing comes into its own and imposes at the same time its own requirements. Chief of these is the use of objectives. Without adopting every tenet of the behavioural objectives school it is nevertheless clear that if students and institution both know where they are headed they have a greater chance of getting there.

There is a tendency to say that content-referencing and the use of objectives are of most use in subjects such as mathematics. Certainly objectives may be harder to spell out in arts subjects, but this only makes the effort of doing so more valuable. Anyone who has watched skating or diving competitions will have been struck by the very small variations between the scores given for a particular performance by different judges. Obviously experts have performance criteria which, as Gagné and Briggs (1974) indicate, should be made explicit to the students:

> "To make such evaluations as objective and reliable as possible, a "grading sheet" or "criterion sheet" may be used; this sheet lists the features to be looked for in the student product, and some system for deciding whether it meets the standards. For example, points may be assigned on each separate feature to be

evaluated; or the number of features present and satisfactory may be counted. Either of these techniques is preferable to the making of a single overall judgment, not only because it improves the evaluation, but also because it can serve a diagnostic function – it can show the student where he needs to improve. This same "criterion sheet" can be given to the student at the outset of instruction, and thereby serve the function of informing him what is expected, suggesting how it may be done, and stating how the product will be evaluated (p. 202)".

ASSESSMENT AND THEORY

Let us now examine some of the more technical features of content-referenced assessment.

Reliability: beware of statisticians!

As Carver (1974) has noted, "Psychometrics has a long documented history and active society, a professional journal, an overwhelming influence on testing, and a multitude of statistical technique and procedures" (p. 517-8). Unfortunately, as Bakan (1967) and Kaplan (1964) have argued, the application of mathematics to a problem can often confuse the issue and prolong the debate further. Examination of the concept of reliability, an important theoretical aspect of measurement, high-lights this point.

To reach a certain level of reliability, under the classical measurement theory, a test must contain items (questions) that will produce results differing as widely as possible between individuals i.e. items that discriminate statistically. To do this the item must be neither too difficult nor too easy. A question which everyone gets right is no good and a question which they all get wrong is no good either. The flaws in this are clear. The students may all get a question right because the instruction was particularly effective on that point and conversely if they all get it wrong.

Content-referencing complicates the notion of reliability as Masson (1974) has shown. This should not be a matter for alarm but an argument for the common-sense approach counselled by Gagné and Briggs (1974, pp. 175-176).

Validity

Another important notion in educational measurement is validity. A test is valid if it does what we want it to do. The joint committee that has prepared the standards for tests has recognized three types of validity: content validity, construct validity and criterion (or prediction) validity (APA, 1974, pp. 25-31). Content validity is concerned with whether a test measures what we wish to assess.

Construct validity indicates the power of a test in measuring a theoretical construct (e.g. intelligence). It is usually based on correlational analyses, e.g. comparing the results of the new test with those of a test that is recognized as valid for the construct in question.

Criterion (or prediction) validity tells whether a test will predict accurately. Examples are college aptitude tests, which indicate whether a student will succeed in college, and aptitude tests given to would-be pilots.

Now a content referenced test obviously ought to be content valid but we must not expect it to be a powerful tool relative to the other two types of validity. In the classical approach to measuring construct and criterion validity a high index of reliability is required since this strongly influences correlation coefficients (Stanley, 1971). However, we have already noted that it is difficult to obtain high indices of classical reliability with content-referenced measures.

The question is, of course, whether we should attempt to use our content-referenced measures to make predictions or measure constructs. We would suggest not.

In the case of constructs (e.g. psychological qualities) we agree with Gagné and Briggs (1974) that if the operational definitions of content-referenced measures are properly elaborated, they become absolute indicators of the instructional objectives and we do not need to conduct construct validity studies. Concerning criterion or prediction validity we hold that aptitude tests are more suitable for prediction than achievement tests (Ebel, 1972).

Content-referencing: what are the snags?

So far in this article we have indicated our clear preference for the use of content-referenced, rather than norm-referenced assessment in distant study systems. But we must not gloss over the limitations of content-referencing. Ebel (1971) has drawn attention to three of them:

1) It does not tell us all we need to know about achievement.
2) It is difficult to apply content-referencing on a sound basis.
3) It is necessary for only a small fraction of important educational achievement.

These objections have a certain force and indeed resemble those advanced against behavioral objectives (MacDonald-Ross, 1973). The first refers to the question of "excellence". We admit that the identification of excellence may have importance and that content-referenced assessment is not a good way of discovering it. The second and third objections have much in common. We make no claim that content-referenced assessment is easy – but then building a quality educational system is not an easy endeavor. There are indeed educational objectives which are difficult to assess but the effort of doing so is often especially worth while. In any case the norm referenced approach tends to run into problems over these objectives too.

CONCLUSIONS

The diversity of the distance education movement is increasing and the separate trends of multi-media instruction, contracted learning and credit-by-examination can now be distinguished (Daniel, 1974). In all three approaches content-referenced assessment should play an important rôle since it encourages the clarification of objectives, the determination of whether they have been attained and gives increased diagnostic support to both the students and the distant study system itself.

BIBLIOGRAPHY

American Psychological Association Inc. (1974). Standards for Educational and Psychological Tests.

Bakan, D. (1967). On Method. Jossey-Bass.

Berg, I. (1970). Education and Jobs: The Great Training Robbery. Praeger.

Bloom, Benjamin S., Hastings, J. Thomas, Madaus, George F. (1971). Handbook on Formative and Summative Evaluation of Student Learning. McGraw-Hill.

Carver, Ronald P. (1974). Two Dimensions of Tests: Psychometric and Edumetric. American Psychologist, 29, 512-518.

Cormier, Roger A. (1974) The Lamontagne Report: An Occasion for Educational Researchers to Meditate on their Work. Bulletin de la SCEE, 1(3), 9-13.

Cormier, Roger A., Bernier, Léon (1974a). Aperçu général de l'évaluation du cours COOP.001 par les étudiants et les animateurs de zone. INRS-Education, Université du Québec.

Cormier, Roger A., Bernier, Léon (1974b). Evaluation du cours COOP.001 d'après un questionnaire posté toutes les semaines à un échantillon d'étudiants. INRS-Education. Université du Québec.

Cronbach, Lee J. (1971). Test validation, in Robert L. Thorndike (Ed.): Educational Measurement (pp. 443-507), Washington: ACE.

Daniel, John S. (1974). Open Learning Systems in Continuing engineering Studies. Engineering Education, 65, 209-212.

Ebel, P. L. (1971). Criterion-referenced measurements: Limitations. School Review, 69, 282-288.

Ebel, R.L. (1972). Essentials of Educational Measurement. Prentice-Hall.

Gagné, Robert M., Briggs, Leslie J. (1974). Principles of Instructional Design. Holt, Rinehart & Winston.

Glaser, Robert (1963). Instructional Technology and the Measurement of Learning Outcomes. American Psychologist, 18, 519-521.

Harpp, D.N., Chan, D.H., Roberts, J.D., Caseril, M. (1972). Organic Chemistry Problems. Benjamin.

Kaplan, A. (1964). The Conduct of Inquiry: Methodology for Behavioral Science. San Francisco: Chandler.

MacDonald-Ross, M. (1973). Behavioural Objectives – A Critical Review. Instructional Science, 2, 1-52.

Masson, Jean-Pierre (1974). Analyse et sélection des items pour un test critère. Texte non-publié.

McIntyre, D. (1970). Assessment and Teaching in D. Rubenstein and C. Stoleman: Education for Democracy. Penguin.

Popham, W. James, Husek, T.R. (1969). Implications of Criterion-Referenced Measurement. Journal of Educational Measurement, 6, 1-9.

Rowntree (1973). What is Educational Technology? Open-University.

Stanley, Julian C. (1971). Reliability, in Robert L. Thorndike (Ed.): Educational Measurement (pp. 356-442). Washington: ACE.

A Statistical Method for Student Evaluation in Distance Education

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In his introduction to the topic dealt with in this paper, the author quotes some passages referring to the need of research work in the field of correspondence education. He stresses that the system of correspondence education certainly can benefit from self-analysis.

The paper then describes a doctoral study, the purpose of which is to discover, by a statistical method, significant and non-significant relationships between several variables. The study is descriptive, using data from the Loyola University of Chicago, and exploratory, aiming at new insights into problems and patterns that should be further investigated.

The study employs the three-dimensional chi-square analysis. The focus of interest is upon completion and non-completion, motivation, courses, and student ages. The computer analysis of the data is still to be made at the time of publication.

INTRODUCTION

Part of the theme of this Tenth International Conference on Correspondence Education is found in the statement in the preface to this pre-conference book:

> Not only is it essential to identify the various advantages within distance education, but we also have to try to isolate the various components of the man-materials system with which we are working in order to be able to develop new courses as efficiently as possible and be able to evaluate existing courses as objectively as possible.

The doctoral study I have undertaken is an attempt to isolate some of these man-material components within a three-dimensional technique. It is hoped that relationships within the system of correspondence education are thereby shown that can be subjected to more precise analysis. I have therefore called my study both descriptive and exploratory.

I am grateful to the ICCE President, Dr. Börje Holmberg, and to Mr. Gunnar Granholm, Programme Committee Chairman, that in their judgments this work I have undertaken can contribute to the goal already described. I am also grateful to many of you attending this Conference – my friends these past years through our association with the Correspondence Instruction Division of the National University Extension Association of the United States. It is only because of your own encouragement of my work that I am here.

I presume to repeat some reminders made by a professional we all admire and respect, Dr. Gayle B. Childs. His comments should encourage us to strive for methods of self-evaluation of our system of of education – a system equally as good as any other; a system which therefore needs no apologies; but a system, like any other, that can benefit from self-analysis. That there are advantages and disadvantages to correspondence education is apparent. We are all familiar with the narration of such factors. Evaluation of our own system is what is important.

More than twenty years ago, in 1953, Dr. Childs was stressing that progress in correspondence education must be made. In his address to the Fourth International Conference of this organization, in Pennsylvania, he provided a format for self-analysis:

> "If progress is to be made, I should say that four things are essential:
>
> "First, we must see correspondence study realistically. We must clearly understand what it is and must recognize its strengths and its weaknesses.
>
> "Second, we must recognize that correspondence study is but one agency for the providing of education. We must see the role which correspondence study is to play within the entire framework of education if we are to work to develop that role.
>
> "Third, we must determine how well correspondence study is now being used to carry out the purposes it is best designed to serve.
>
> "Fourth, we must devise procedures which will help correspondence study to fulfil its essential role".

Thus we were encouraged in 1953. Dr. Childs' delineation of our do's and don'ts and caveats suggests a paraphrase:

> Stand Up and Be Counted!
>
> (or SIT DOWN, if you have nothing to contribute)
>
> . . . but before you sit down, reflect:

First, γνωθι σαυτον (gnothi sauton) – Know Thyself!
It is no sign of weakness to know one's weaknesses. (Had Sampson known his weakness, he might never have lost his strength.) As educators, the only weaknesses that should make us blush are those we are unwilling to assess, to change.

Second, humility is honesty. If you have something to contribute, stand up and be counted. Be proud.

Third, be humbly proud of knowing yourself; and be proud to contribute.

Fourth, serve in self-knowledge, humility, pride, and honesty.

We were once more encouraged in 1957.

> "We must also study the correspondence study process and learn to use it with constantly increasing effectiveness. Correspondence study has been successful in part because it has filled so desperate a need. But if we hope to use it as an instrument to serve a rapidly broadening program we must learn to be flexible and adapt our procedures to new purposes."[2]

We were chided, though gently, in 1962:

> "We need research to help us improve our procedures. Much of what we do now in correspondence study we do because we inherited it . . . Undoubtedly much of what we do is good. But we don't really know this because little of it has been subjected to searching examination to determine whether it is better than something else we might be doing . . . We need to give consideration to research which has already been completed, that which is now in progress and more specifically than I have done up to now, to that which we need to conduct in the future."[3]

One year previous, in 1961, we in the United States were told the unadorned, stark fact: "That almost no research has been published on the use of our medium for adults."[4] This comment was made by Leonard S. Stein in his review of An Overview of Adult Education Research, edited by Brunner, Wilder, Kirchner and Newberry. Moreover we were told in equally strong, not uncertain, and plain terms:

> "That Brunner and his associates give correspondence study scant attention . . . is certainly not those scholars' fault; they could take only what they found – and they found very little."[5]

Again in 1969, as Chairman of the ICCE Committee on Research, Dr. Childs reminded us, with some lament, that what was true in 1965 bore repeating, but sadly, in 1969:

> "At the time of the Seventh International Conference held in Stockholm in 1965 I prepared a paper on research in the field of correspondence study . . . In that paper, I made the statement that 'It is probably safe to say that if one were to make a list of the areas of notable achievement in the correspondence study field, research would not head the list.' I am afraid that today, four years later, one would be on equally safe ground in making that statement."[6]

And in 1973, in Omaha, Nebraska, we were once again told, as members of the Correspondence Study Division of the National University Extension Association in the United States:

> "The method of instruction just doesn't make any difference. . . . It is necessary, if learning is to occur, that sensory impressions be received by the learner. There must be an input of information which is the basis for learning. But there is no consistent evidence which establishes that any one form of providing this input is superior to others. In fact, the evidence is overwhelmingly to the contrary."[7]

We have, therefore, no need to apologize. The evidence is overwhelmingly to the contrary. As the preface to this book asserts, "The day seems to be passing rapidly when one method of education can function alone to the exclusion of all others, if indeed this was ever the case."

We have served, and "certain characteristics of distance education are well-known through repeated recital." The laurea, however, is part of history. But have we been content with past honors? Driscoll addressed the Ninth Conference in 1972 and said: "Unfortunately, we are still having some research on matters that have already been adequately researched in the past and, too often, a continuing lack of application of existing research."[8]

MacKenzie and Christensen judged the remark of Dr. Childs, made in 1962, to be contemporary enough to be a part of their own work, The Changing World of Correspondence Study, in 1971:

> "But when it comes right down to it, what do we really know about the teaching methods we employ in correspondence study? About how many of them can we say, with reasonable certainty, that they are better than other methods we might be using instead?
>
> . . .
>
> "Research and development aimed at improving education has been at a pitifully low level and has never been taken really seriously by most educators.

"... We [must] find, if we can, new and better ways of teaching by correspondence study even if it means abandoning old methods, old processes, and old products to which we, also, may have become, without realizing it, too fondly attached."[9]

And this is a book of international readings!

"Stand Up and Be Counted!" – or sit down ... but

First: Know yourself.

Second: Be proud of that knowledge.

Third: Be proud to be of service.

Fourth: Find procedures which will help Correspondence Education to fulfil its essential role.

A THREE-DIMENSIONAL CHI-SQUARE ANALYSIS OF A DIVISION OF CORRESPONDENCE EDUCATION IN A PRIVATE AMERICAN UNIVERSITY

I The nature of the investigation

This investigation was conducted with the data available at Loyola University of Chicago, a private, Catholic institution of higher education in the United States. It was made after a bibliographical investigation of research literature that revealed the following:

1 There is a need and desirability of such a study, particularly since it is clear that methodologically correspondence education no longer need to apologize for its existence; that it no longer need to evaluate itself solely by comparing its effectiveness with other methods of teaching and learning.

2 No similar study with such a three-dimensional statistical design has previously been conducted.

This study is intended to demonstrate that correspondence education can be made more useful and desirable because of self-evaluation. Further, it is intended to be descriptive and exploratory. It does not judge correspondence education. That is a responsibility of the professionals. But in demonstrating a newer, more critical approach for obtaining information, the study is intended to invite you professionals to use that information for further selfstudy about priorities, changes, weakensses and strengths.

The work is descriptive for two reasons. First, the hypotheses tested describe three-dimensional relationships known to be of concern to professionals in correspondence education, especially in the United States. These statements were ranked on a scale by seventeen professionals in the United States (see Appendix A). This, therefore, suggests an internal validity to the investigation. What this investigator assumed to be of concern to persons in correspondence education, was as a matter of fact of some concern. These hypotheses were ranked on a scale: Very Important = 3, Important = 2, Not Very Important = 1. The weighted mean method was used to give a final rank to the list of statements. The range of scores by this method, for each statement, was 1.00 to 3.00.

What relevance do the findings concerning these relationships have beyond the confines of the experiment, the particular hypotheses, and the location of the data? Or, what of the external validity of the investigation? It is suggested that because the hypotheses are not limited to the location of data, but are rather generalized and therefore testable by use of data of any correspondence education facility, they possess an external validity. That professionals throughout the United States ranked the statements gives them broader scope, suggesting that the hypotheses have relevance beyond specific data and specific locations.

Second, the work is descriptive because it is a pilot project. This study simply discovers significant and non-significant associations between variables. It screens hypotheses of lesser value (and might indeed explore why they are of lesser value); it detects relationships between variables that other, more refined analysis and experimentation can study with profit under more rigorously controlled laboratory conditions.

The work is also exploratory. The discovery of significant and non-significant relationships between variables is intended to point out areas of inter elationship where further investigation is suggested. It answers the questions: Is it possible that the frequency of occurrence of three-dimensional interrelationships under examination will reveal patterns and processes? What insights into problems and patterns may be provided by the knowledge of such relationships? But the study leads to the question: Why such patterns and processes?

Further exploration into underlying causes of the relationships discovered should be made by means of more precise statistical techniques and designs, and of more rigorously controlled laboratory conditions.

II Establishing the hypotheses

The hypotheses were constructed after bibliographical investigation into those areas of most concern to professionals in correspondence education. It was determined that the focus of interest was upon completion and non-completion, motivation, courses, student ages.

The hypotheses were then presented to seventeen professionals in correspondence education in the United States, as stated earlier. After determination of the ranks of the weighted mean scores for the statements, I judged it most relevant to examine the following hypotheses:

1 Student motivations show no relationship to the completion or non-completion of courses considered as either upper or lower division courses (Weighted mean – 2.76).

2 Whether a correspondence study student is a former university student, or a non-student, is not related to the age ranges of the students enrolled, nor is it related to their motivations of professional improvement, or of culture and continuing education (weighted mean – 2.38).

3 There is no relationship between the completion or non-completion of courses, and the average grades students receive for lessons, where the same courses are taken from different teachers (weighted mean – 2.25).

4 The levels (upper or lower division) of the courses students taken bear no relationship to their motivations of either professional improvement or continuing education, nor to the rates of completion or the non-completion of the course (weighted mean – 2.12).

5 The completion or non-completion of courses is not related to the student's residence or his/her previous higher academic achievement (weighted mean – 2.00).

III Methodology

Because the data used are discrete in all dimensions, the three-dimensional chi-square design was employed. This technique requires random sampling from a relatively large population, and independence. Since the parameters involved possess these exclusive elements, the statistical method is appropriate. Student ages, completion and non-completion, completion rates, courses, and motivation (as checked by the students themselves) can all be regarded as mutually exclusive. Further, refinements within a single parameter can be similarly regarded. For example, a student cannot be categorized under two completion rates for the same course; he or she cannot be in two age ranges with respect to enrolment in the same course.

IV Results

The computer analysis of the data is still to be made at the time of publication. Once it is accomplished I will, in my address to the conference, discuss the practical implications in terms of the exploratory nature of the investigation:

A. What do these findings say about the student?

B. What do these findings say about the self-analysis this particular institution can now make in providing correspondence education? (Can similar suggestions now be made to other institutions as well?)

C. What broader implications for correspondence education generally can be made, particularly in view of the observations on the external and internal validity of the hypotheses, stated briefly above?

D. Since the correspondence education offered at Loyola University of Chicago is linked with an academic institution, in contrast to a proprietary school, I will not discuss these findings related to the student's future employer.

APPENDIX A

The following persons evaluated the proposed hypotheses in the method already described in this paper.

Dr. Robert Batchellor
Assistant Director
Independent Study through Correspondence
Ohio University

Miss Vasser Bishop
Director
Correspondence Instruction
The University of Mississippi

Mr. John L. Davies
Director
Instructional Services
The University of Iowa

Miss Grace M. Donehower
Assistant Dean
General University Extension and Independent Study
University of Nevada, Reno

Dr. William J. Driscoll
Director
Independent Study through Correspondence
Ohio University

Doil F. Felts
Director
Center for Independent Study through Correspondence
University of Missouri

Dr. Charles W. Hartsell
Director
University Correspondence Study
Division of Continuing Education
University of Tennesses

Del W. Holbrook
President
Home Study Institute
Takoma Park
Washington, D.C.

Francis L. Johnson
Director
Independent Study
University of Wisconsin

David M. Mercer
Department of Independent Study by Correspondence
The Pennsylvania State University

Monty E. McMahon
Head
Independent Study
University Extension Division
University of Nebraska

Miss Mary L. McPartlin
Director
Correspondence Study Division
Loyola University of Chicago

Earl Pfanstiel
Director
Independent Study
University of Kentucky

Miss Elizabeth Powell
Supervisor
Independent Study
University of Georgia
Center for Continuing Education

Dr. Ripley S. Sims
Academic Programs
Unites States Armed Forces Institute

Miss Norrine Tempest
Director
Correspondence Study
University of Utah

Mr. John P. Wilson
Academic Programs
United States Armed Forces Institute

NOTES

[1]Childs, Gayle B.: Supervised Correspondence Study, in: Proceedings, Fourth International Conference on Correspondence Education, State College, Pennsylvania: The Pennsylvania State College General Extension Services, 1953. p. 99

[2]Childs, Gayle B.: The Techniques and Effectiveness of Correspondence Instruction, or, Why Students Using Supervised Correspondence Study Methods Do So Well,: Record of Proceedings, The Fifth International Conference of the International Council on Correspondence Education. Banff, Alberta, Canada: Banff School of Fine Arts, 1957. p. 68

[3]Childs, Gayle B.: Correspondence Study Research, in: Proceedings of the Sixth International Conference of the International Council on Correspondence Education, Eugene, Oregon: General Extension Division, Oregon State System of Higher Education, 1962. p. 115

[4]Stein, Leonard S.: Is Home Study a Stepchild?, in: Home Study Review, Volume 1, Number 4. Winter, 1961. p. 33

[5]Ibid., p. 35

[6]Childs, Gayle B.: Reports from Chairmen of Standing Committees, in: Proceedings of the Eighth International Conference of the International Council on Correspondence Education, Renee Erdos (editor). Paris: Unesco House, 1969. p. 40

[7]Childs, Gayle B:: Correspondence Study: Concepts and Comments, an unpublished address to the Correspondence Study Division of the National University Extension Association, Omaha, Nebraska. April, 1973.

[8]Driscoll, William: New Developments and Changes in Independent Study; USA, in: Ninth International Conference on Correspondence Education, A Collection of Cenference Papers, Volume I, Henry A. Bern (editor). Bloomington, Indiana: Indiana University, 1972. p. 59

[9]Childs, Gayle B:: Problems of Teaching by Correspondence Study, in: The Changing World of Correspondence Study, by Ossian MacKenzie and Edward L. Christensen (editors). University Park: The Pensylvania State University Press, 1971. pp. 116, 119.

Two-Way Communication in Distance Education

An Evaluation of Various Modes

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This paper introduces a research project, which will be discussed and expounded in detail during the conference session. The project comprises experimental series concerning pure postal two-way communication, supporting telephone instruction, and face-to-face tuition. In addition, the project plan includes a systematical-analytical study of correspondence instruction.

The author discusses criteria for evaluation, and states that the control groups in the research project are students studying conventional correspondence courses. He also describes a pilot study, concerning distance study on university level, supported by telephone instruction.

At the Department of Education at the University of Lund in Sweden we are since July 1973 working on a research project called "Two-Way Comminication in Correspondence Education", in co-operation with the European Home Study Council (EHSC). The project plan originates from the EHSC Research and Development Committee, and the project is financed by the Bank of Sweden Tercentenary Fund.

When the project plans were developed we had been studying reports concerning research in the area of correspondence education, and we were aware of the large and important field of study. The decision to study the two-way communication was due to an inquiry sent to the EHSC member schools. The answers indicated obviously the importance of studying the two-way communication between student and tutor in correspondence education.

Pure postal two-way communication

As is well known one of the generally accepted characterstics of correspondence education is the submission of exercises on the lessons. Among correspondence educators they are assumed to be of great importance. But do we really know how important they are? Do the students want a lot of contacts – that is, a great number of submissions – or do they want only a few? Which are the effects of the number of submissions on the study results or on the attitudes of the student? Are there any differences in various subjects or between various types of students? Do the students react differently to different types of correction manner – preproduced typed comments or teacher's handwritten comments?

In order to find the answers to these questions we are carrying out an experimental series where subjects, submission frequency, number of questions on each submission, types of questions, and manner of correction, are varied. We hope to shed light on problems connected with the students' assignments for submission from different view-points.

Supporting telephone instruction

A second experimental series concerns the problem of how to reinforce the postal two-way communication with the aid of tele-communication. In some cases correspondence schools have given the students the opportunity to phone their tutors. Some students did phone their tutors, but too many did not.

Consequently, we asked ourselves if the tutors should phone the students instead. Is it possible to have the students working more efficiently by giving them the possibility to discuss orally with their tutors? Does the correspondence student feel less isolated when he has this possibility?

For experimental reasons we divided the students into two groups. One group – the experimental group – is called up by the tutor a couple of days after the corrected exercises have been returned. The other group – a control group – does not get any telephone call. There are no restrictions in the content of the conversation between the tutor and the student, but all calls are recorded for future analysis of content.

Face-to-face tuition

The main aim of the third experimental series we are carrying out is to evaluate the most suitable ways of integrating face-to-face tuition into correspondence education. Many schools combine correspondence studies with face-to-face meetings. What functions should these oral sessions fulfil? What do the teachers of these meetings really do? Which role does the correspondence material play in this situation?

Maybe this type of combination – correspondence study and face-to-face meetings – will be more common in the future. Therefore, we must first of all know the effects of the combination: Which are the students' attitudes to this form of learning? Which instructions shall the teachers of the oral sessions have? What are they supposed to do?

To find answers to some of these questions we have started a couple of experiments where the teachers have been instructed to behave in different ways. In one experiment group the teacher takes the initiative to the activities in the meetings. The correspondence course is more or less subordinated to the oral instruction. We call this type teacher-controlled teaching. In the other experiment group the students take the initiative. The correspondence course is here the principle source of information which directs the students' work, and this in turn directs the oral instruction. This type of combined study we call learner-controlled guidance.

As control groups we have "pure" correspondence students studying the same course but without possibility of participating in a group-meeting.

Why do adults study by correspondence?

A great deal of work has been done to find out the reasons why adult students participate in adult education. Except for a couple of studies the investigations have been concerned with students participating in evening classes or more regular ways of studying. In order to explore the reasons why correspondence students participate in studies and especially in correspondence studies, we have presented to all subjects of our experiments a questionnaire where they have to evaluate a number of statements concerning their reasons for studying.

Systematical-analytical study

In addition to our experimentation we will also try to relate general principles of learning and teaching to the specific instructional conditions of correspondence study. This may be seen as a presumptuous task. Our intention is, however, to select information from research performed in the field of correspondence study and relate it to general principles of learning and teaching. We know that our level of aspiration is high. Maybe we will reach at least some steps in this direction.

Evaluation problems

As in all experimentation there will be problems in finding the criteria for evaluation. Many studies in education have dealt with those problems. To find the "true" criteria for the effectiveness of different teaching methods is as difficult as to find criteria for a "good teacher". No one has yet found the criteria which will be able to characterize a good teacher. Nor has anyone found criteria for evaluating the best teaching method.

Many media researchers have for several years tried to emphasize a certain new medium as superior to other media. The criteria for evaluation of a new medium typically involve comparison with other media , and since the medium most familiar to most of us is the teacher involved in face-to-face instruction, there is an inherent tendency for this type of instruction to become the standard of judgement. It is necessary to exhibit great care when doing this, because a certain medium is not necessarily a substitute for face-to-face instruction. Each medium – or teaching method – will have its own inherent characteristics, which should not be expected to imitate face-to-face patterns.

We have, of course, the same criteria problem. But an advantage to us is that we are not using as a standard of judgement the regular class-room teaching and learning. We are just working with correspondence students and do not make any comparison with other students. The control groups in our experimentation are students studying conventional correspondence courses. Those are our basis for conclusions about the effectiveness of various modes of changing the two-way communication.

In our research project we are not dealing with the question of how superior the correspondence method is. We just want to prove how it is possible to make the correspondence education better.

Pilot study

In Sweden there has been a growing interest in distance education on university level during the last few years. As early as in 1953 Hermods started to develop correspondence courses for this level. More than 4,000 students have passed their examinations after studying these courses.

However, the initiative is now taken by the Office of the Chancellor of the Swedish Universities. In 1973 the Office invited a number of departments to participate in experimental work where distance education should be developed as an ordinary activity of the department.

At the Department of Education at the University of Lund a course in educational technology was developed. Our research team had the possibility to follow this work very closely, and also to perform some evaluative studies which should be of use to our main research, especially to the second experimental series concerning telephone tutoring.

The course was scheduled as a correspondence course with four weekend meetings at the department during the 7 months the course took place. During the whole course and between the meetings the teachers were in contact with the students by telephone. The teachers were instructed to phone the students at certain points, but the students were allowed to call the teachers whenever they wanted.

For the experimental work there were restrictions in the number of students allowed to participate. 22 students completed the course. Most of them had previous experience of university studies.

All the telephone calls were recorded and analysed. Totally 140 calls were exchanged, which means an average of 6.36 per student. Of these 140 calls 119 were made by the staff, the remaining came from the students.

There were no restrictions in the telephone conversation, neither in time nor in subject matters. On an average each call lasted almost 10 minutes with a variation from 2 min. up to 25 min. All the telephone calls started with words of courtesy. Then the student almost every time began to ask questions about the study material. The questions concerned obscurities in the texts or the exercises. The teacher's comments on the exercises submitted were also discussed, and the teacher was able to give further comments.

About 80 per cent of the telephone calls included at least some discussion about things irrelevant to the course: personal problems, "wind and weather", and so on. But the time devoted to these things varied very much, from just a few seconds up to around 75 per cent of the total time for the call. In 10 per cent of the calls more than 50 per cent of the time was spent on discussion of a more personal nature.

At the moment the results mentioned above are preliminary. A report from this pilot study is in preparation and will be published during the spring of 1975. The preliminary analysis has, however, been of great value when outlining the design of the experimental study.

A Bibliography on Correspondence Education

Based on Department of Adult Education Library, University of Manchester

Mr. W. J. A. Harris

Overseas development studies, marked*

The items marked with a (T) might also be useful to those seeking advice on the setting up of divisions of correspondence instruction. Some of the private material issued by various correspondence institutes and colleges is also useful to those who have access to this.

Manchester D.A.E reference (library)	Books and Larger Pamphlets
R5. ASS.	A.B.C.C. – Association of British Correspondence Colleges, Handbook, 1967.
R5. BAA.	Bååth J.A. & Flinck R. – Two-way communication in correspondence education (an introduction to the Research project). Lund University, Sweden, 1973.
R5. DOD. (T)*	Dodds T. – "Multi media approaches to rural Education" – Cambridge, International Extension College broadsheets, Cambridge, N.E.C., 1972.
R5. EDS*	Edström L.O. and others – "Mass education" 1967 Handbook. (Studies in adult education & teaching by correspondence in some developing countries) – Almqvist & Wiksell, Sweden, 1970.
R5. ELB*	El-Bushra J. – "Correspondence teaching at University" Cambridge, I.E.C., 1973.
R5. ELI.	Eliasson T. – "Correspondence education in Sweden" – Committee for Out of School education, Council of Europe, 1968.
R5. ERD.	Erdos R.F. – Proceedings of the 8th international conference of the I.C.C.E., Paris, 1969.
R5. ERD. (T)	Erdos R.F. – "Teaching by correspondence" – Longmans, UNESCO, 1967.
R5. ERD. (T)*	Erdos R.F. & Clark J.H. – "Correspondence courses for in-service teacher training at primary level in developing countries" – Hamburg, UNESCO, 1971.
R5. EUR.	E.C.E.C. – "European Council for Education by Correspondence" – 1965 Yearbook, 1967.
R5. FAK*	Fakes J. – "Technical education at a distance" Cambridge, I.E.C., 1973.
R5. GLA.	Glatter R. – "Aspects of correspondence education in 4 European countries" – 1969, Pergamon Press "Comparative Education" (reprint, pamphlet).
R5. GLA.	Glatter R. – "Education by correspondence in Netherlands, West Germany, East Germany and France" – 1968 (reproduced in "Study by Correspondence).
R5. GLA.	Glatter R., Wedell E.G., Harris W.J.A., & Subramanian S. – "Study by Correspondence", 1971, Longman.
R5. GRO.	Gros L. – "Correspondence education in France", Council of Europe, 1968.
	Gunby J. – "The Open University" – 1966, (reprint) "Cambridge Review" (pamphlet).
	Gurr C.E. – "Committee on Accreditation of Correspondence Colleges" – 1966, Report, A.B.C.C. or Cleaver-Hume Group, (pamphlet).
R5. G18 HAA.	Haagman H.G. – "Correspondence schools in the Federal Republic of Germany" – 1968, Erns-Klett-Verlag, Stuttgart.
R5. DAG*	Hammarskjöld Foundation – "Correspondence instruction in East Africa" – 1966 Report.
R5. DAG* (T)	Hammarskjöld Foundation Seminar – "Use of correspondence instruction" – papers, etc. Uppsala, Sweden, 1967.
R5. HAR. (T)	Harris W.J.A. – "Home Study Students" – Department of Adult Education, University of Manchester, 1972.
HAR. (T)	Harris W.J.A. – "The Distance Tutor", 1975 (in preparation).
R5. HAR.	Harris W.J.A. – "Correspondence Education in Britain" – (reprint) "Adult Education", "Home Study Review, USA", 1968, (pamphlet).
	Holmberg T.B. –" On the methods of teaching by correspondence" – 1960.
*	Hopeton Gordon L.A. – "Learning at a distance", 1969/70 (unpublished) University of West Indies, Jamaica, (pamphlet).
R5. KAB* (T)	Kabwasa A. & Kaunda M.M. – "Correspondence education in Africa" Routledge, 1973.
R5. KIN*	Kinyanjui P. – "Training teachers by correspondence" Cambridge, I.E.C., 1974.
R5. MAC.	McKenzie O. & Christensen E.L. – "The changing world of correspondence study" – 1971, Pennsylvania University, USA.
R5. NAT.	National Extension College – "Courses format: notes for the guidance of course authors" Cambridge N.E.C., 1972.
	N.E.C., "Home Study", – 1967, 1968, (occasional periodical), National Extension College, Cambridge.
	N.H.S.C. – "The Home Study Review", 1966, 1967, USA National Home Study Council periodical, quarterly.

A3: R5. NAT.	N.U.E.A. ("An annotated bibliography of correspondence study"), National University Extension Association Committee on Research, Division of Correspondence Study + USA, 1960 (bibliography 1897–1960).
R5. PER. (T)*	Perraton H.D. – "The Techniques of writing correspondence courses", Cambridge I.E.C., 1973.
R5. NAT.	Perraton H.D. – "Correspondence teaching & television", Report on a mathematics course, National Extension College, 1966.
	Peters O. – "Der Fernunterricht" – 1965, Weinheim & Berlin, Beltz.
	Rowbottom A. – "Correspondence instruction" 1962, University of California, USA (pamphlet).
	Schramm W. – "The New Media: Memo to Educational Planners" – 1967, UNESCO/International Institute, Paris.
*	Sheath H.C. – "Report on Visit to Federation of Rhodesia & Nyasaland" – 1963, (pamphlet).
R5. SLO.	Sloos I.J. & others – "Correspondence education in the Netherlands" – Leiden, 1970.
R5. SUB.	Subramanian S. – "A Survey of correspondence & Extra-Mural education in Sweden, Russia and Poland" – (reprod. in "Study by Correspondence") 1968.
(T).	The Open University – O.U., B.A. Degree (handbook), 1972.
	University of Nottingham, Department of Adult Education – "The standard of living," 1964, miscellaneous papers re T.V. course with correspondence, (pamphlet).
(T)*	University of Zambia, "Notes on the Teaching of Correspondence Courses", 1966, Dept. of Correspondence Studies (unpublished pamphlet).
R5. WED.	Wedell E.G. – "The place of correspondence in permanent education" – Council for European Cultural Cooperation, Strasbourg, 1970.
R5. WED.	Wedell E.G. & Perraton H.D. – "Teaching at a distance" National Institute of Adult Education, 1968.
R5. WED.	Wedemeyer C.A. – "The Brandenburg Memorial essays on correspondence instruction II" – Wisconsin University, 1966.
	Widoff S. – "Swedish personnel training today", 1965 (pamphlet).
	Widoff S. – "One example of the service Hermods provides to Companies" – 1965 (pamphlet).
*	Zambia, Ministry of Education, "State correspondence education in Zambia" – 1966 (unpublished pamphlet)

Other material such as small pamphlets, shorter articles and specimen courses are also available for reference.